



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV 18 2015

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL 7009 1680 0000 7677 9029
RETURN RECEIPT REQUESTED

Ms. Brenna Harden
Environmental Engineer
EES Coke Battery, LLC
1400 Zug Island Road
Detroit, Michigan 48209

Re: Notice of Violation - RCRA
Compliance Evaluation Inspection
MIK498855683

Dear Ms. Harden:

On March 11-12, 2014 and March 17-19, 2015, representatives of the U.S. Environmental Protection Agency inspected the EES Coke Battery facility located in Detroit, Michigan (hereinafter "EES," "facility," or "you"). As a large quantity generator of hazardous waste, EES is subject to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.* (RCRA). The purpose of the inspections was to evaluate EES' compliance at the facility with certain provisions of RCRA and its implementing regulations related to the generation, treatment and storage of hazardous waste. Copies of the inspection reports are enclosed for your reference.

Based on information provided by EES, EPA's review of records pertaining to EES, and the inspectors' observations, EPA has determined that, as a result of EES' failure to comply with certain conditions for a license exemption under Mich. Admin. Code. r. 299.9306(1)-(3) [40 C.F.R. § 262.34(a)-(c)], the facility has unlawfully stored hazardous waste without a license or interim status. The license exemption conditions with which EES was out of compliance at the time of the inspections are set forth in paragraphs 1 - 4, below.

Many of the conditions for a RCRA license exemption are also independent requirements that apply to licensed and interim status hazardous waste management facilities that treat, store, or dispose of hazardous waste (TSD requirements). When a hazardous waste generator loses its license exemption due to a failure to comply with an exemption condition incorporated from Mich. Admin. Code. r. 299.9601(1)-(3) and 299.11003(1)(m)-(o), the generator: (a) becomes an operator of a hazardous waste storage facility; and (b) simultaneously violates the corresponding TSD requirement. The exemption condition identified in paragraph 4 is also an independent TSD requirement incorporated from Mich. Admin. Code. r. 299.9601(1)-(3) and 299.11003(1)(m)-(o). Accordingly, each failure of EES to comply with these conditions is also a violation of the

corresponding requirement in Mich. Admin. Code. r. 299.9601(1)-(3) and 299.11003(1)(p) and (q) [40 C.F.R. Part 265], or Mich. Admin. Code. r. 299.9601(1) and (2) and 299.11003(1)(m) – (o) [40 C.F.R. Part 264].

STORAGE OF HAZARDOUS WASTE WITHOUT A LICENSE OR INTERIM STATUS AND VIOLATIONS OF TSD REQUIREMENTS

At the time of the inspection, EES was out of compliance with the following large quantity generator license exemption conditions:

1. Hazardous Waste Accumulation

Under Mich. Admin. Code. r. 299.9306(1) and (3) [40 C.F.R. § 262.34(a) and (b)], a large quantity generator may accumulate hazardous waste on-site for 90 days or less without a license or interim status (unless the generator has been granted an extension of the 90-day period).

At the time of 2014 inspection, EES was storing hazardous waste in 55-gallon drums in an outdoor 90-day storage area near the booster station. One of these drums, labeled as “Hazardous Waste – Tail Gas Solids,” was dated 11/6/2013, indicating it had been on site for 125 days on the date of inspection, 3/11/2014. A second drum, labeled as K143 hazardous waste, was dated 12/11/2013, indicating it had been on site for 90 days at the time of the inspection.

In an April 15, 2014 follow-up letter to the 2014 inspection, EES stated that these two drums were unable to be shipped off site within 90 days because they had been frozen in place due to the winter weather. EES stated that the two drums had been shipped off site for disposal as of April 11, 2014, indicating the drums of hazardous waste tail gas solids and K143 hazardous waste were stored on site for a total of 156 days and 121 days, respectively. By storing hazardous waste for longer than 90 days without a license or interim status, and without an extension, EES failed to meet the above condition for a hazardous waste license exemption.

2. Date When Each Period of Accumulation Begins

Under Mich. Admin. Code. r. 299.9306(1)(b) [40 C.F.R. § 262.34(a)(2)], a large quantity generator must clearly mark each container holding hazardous waste with the date upon which each period of accumulation begins.

At the time of the 2014 inspection, EES was storing hazardous waste in 55-gallon drums in an outdoor 90-day storage area near the booster station. Five drums of hazardous waste in this storage area were not marked with the date when each period of accumulation of hazardous waste began. In an April 15, 2014 follow-up letter to the 2014 inspection, EES

stated that these drums had been dated during the inspection. Thus, no further corrective action is necessary to meet this condition.

3. Hazardous Waste Container Labeling

Under Mich. Admin. Code r. 299.9306(1)(c) [40 C.F.R. § 262.34(a)(3)], a large quantity generator must label or clearly mark each container holding hazardous waste with the words "Hazardous Waste." In the State of Michigan, it is further required under Mich. Admin. Code r. 299.9306(1)(b) that containers used to store hazardous waste must be labeled or marked with the hazardous waste number (code) of the waste.

At the time of the 2014 inspection, EES was storing hazardous waste tar sludge in four roll-off boxes near a flare by the by-products processing area. The roll-off boxes were dated but were not marked with the words "Hazardous Waste" or with the hazardous waste numbers (codes) of the waste. In an April 15, 2014 follow-up letter to the 2014 inspection, EES indicated that the roll-off boxes had been marked with the words "Hazardous Waste" and the applicable hazardous waste numbers. Thus, no further corrective action is necessary to meet this condition.

The license exemption condition identified below in paragraph 4 is also an independent TSD requirement violated by EES:

4. Operation of Facility to Prevent and Minimize Releases of Hazardous Waste

Under Mich. Admin. Code r. 299.9306(1)(d) [40 C.F.R. § 262.34(a)(4); 265.31], large quantity generators must maintain and operate their facilities to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

During the 2014 and 2015 inspections, EES operated its by-products processing area ("BP area") under the solid waste exclusion at Mich. Admin. Code r. 299.9204(1)(n) [40 C.F.R. § 261.4(a)(10)], which states that:

"EPA hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148 and any wastes from the coke by-products processes that are hazardous only because they exhibit the toxicity characteristic specified in Mich. Admin. Code r. 299.9212 [are not solid or hazardous wastes] when, after generation, the materials are recycled to coke ovens or to the tar recovery process as a feedstock to produce coal tar or are mixed with coal tar before the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point that the wastes are generated to the point that they are recycled to coke ovens or tar recovery or refining processes or are mixed with coal tar."

In its BP area, EES collects and processes its coke oven gases to produce tars and light oils. This processing generates hazardous wastes which meet the definition of the listed hazardous waste numbers K087, K141, K142, K143, and K144. EES claims to meet the solid waste exclusion in Mich. Admin. Code r. 299.9204(1)(n) [40 C.F.R. § 261.4(a)(10)] by 1) collecting decanter tank tar sludge (K087) at its point of generation and recycling the material back into the coke ovens via an automated conveyance system or SIF reclaim hopper and 2) collecting other process residues (K141 - K144) from miscellaneous sources in the coal tar and light oil recovery areas and placing the material in a "launder tank" (Tank #8) which recycles the material back to the tar decanters.

During both the 2014 and 2015 inspections, significant amounts of free decanter tank tar sludge (K087) were observed on the ground both inside and outside the secondary containment area of the north and south tar decanters, as well as inside and outside the secondary containment area of the SIF reclaim hopper. EES personnel stated during the 2015 inspection that this free tar sludge would not be recycled because it had not been containerized and could contain debris that could harm processing equipment. As a result, this material did not meet the exclusion outlined above and was a hazardous waste.

Similarly, during both the 2014 and 2015 inspections, releases of coal tar processing residues were observed in between the north primary cooler and the flushing liquor pump house due to apparent equipment failures. These released tar residues were draining north to a nearby stormwater catch basin. EES personnel stated during the 2015 inspection that this material would not be recycled and instead collected and disposed of as hazardous waste. Because this material was not being recycled, it did not meet the exclusion outlined above and was a hazardous waste.

In describing the solid waste exclusion at 40 C.F.R. § 261.4(a)(10) for wastes generated at coke by-products processing plants, EPA stated that the exclusion from hazardous waste management requirements is "conditioned on there being no land disposal of the residues at any point from residue generation to reinsertion to the coke oven or tar recovery or refining process." Accordingly, EPA stated that "any of these materials [residues] that are placed in land disposal units such as piles are solid and hazardous wastes" and "an abandoned spill of these materials (viz. a spill not picked up expeditiously and used beneficially) constitutes disposal of a hazardous waste" (*See* 57 Federal Register 27884).

Because EES had releases of decanter tank tar sludge and coal tar processing residues that were not cleaned up expeditiously and were not being recycled, these materials were not excluded under Mich. Admin. Code r. 299.9204(1)(n) [40 C.F.R. § 261.4(a)(10)] and were hazardous wastes. By not timely responding to releases of hazardous waste on its site, EES failed to operate its facility in a way that minimizes the release of hazardous waste and is in violation of the above requirement.

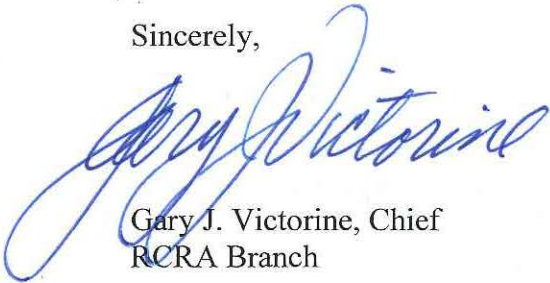
Summary: By failing to comply with the conditions for a license exemption, above, EES became an operator of a hazardous waste storage facility, and was required to obtain a Michigan hazardous waste storage license. EES failed to apply for such a license. EES' failure to apply for and obtain a hazardous waste storage license violated the requirements of Mich. Admin. Code. r. 299.9502(1), 299.9508 and 299.9510 [40 C.F.R. §§ 270.1(c), and 270.10(a) and (d)]. Any failure to comply with a license exemption condition incorporated from Mich. Admin. Code. r. 299.9601(1)-(3) and 299.11003(1)(m)-(o) is also an independent violation of the corresponding TSD requirement.

If the facility expeditiously establishes compliance with the conditions for a license exemption outlined in paragraphs 1 – 4, above, EPA is not at this time requiring EES to apply for a Michigan hazardous waste storage license.

According to Section 3008(a) of RCRA, EPA may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both. Although this letter is not such an order, or a request for information under Section 3007 of RCRA, 42 U.S.C. § 6927, we request that you submit a response in writing to us no later than 30 days after receipt of this letter regarding the violations alleged above that documents any actions you have taken to establish compliance with the above conditions and requirements, and the steps you will take to prevent future violations. You should submit your response to Mr. Brian Kennedy, U.S. EPA, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Mr. Brian Kennedy, of my staff, at (312) 353-4383 or at kennedy.brian@epa.gov.

Sincerely,



Gary J. Victorine, Chief
RCRA Branch

Enclosures

cc: John Craig (craigj@michigan.gov)
Lonnie Lee (leel@michigan.gov)
Bryce Feighner (feighnerb@michigan.gov)



U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5, Land and Chemicals Division
RCRA Branch, LR-8J
77 West Jackson Boulevard
Chicago, Illinois 60604

RCRA COMPLIANCE EVALUATION INSPECTION REPORT
As Part of a
MULTIMEDIA INSPECTION

INSPECTION DATE: March 17-19, 2015

SITE NAME: DTE Energy Services
EES Coke Battery

ADDRESS: 1400 Zug Island Road
Detroit, Michigan 48209

EPA ID NUMBER: MIK498855683

GENERATOR STATUS: Large Quantity Generator (2014)

NAICS CODE: 324199 All Other Petroleum and Coal Products Manufacturing

FACILITY CONTACT: Brenna Harden
Environmental Engineer

EPA INSPECTOR: Brian Kennedy
Environmental Engineer
Compliance Section 2
RCRA Branch
Land and Chemicals Division

PREPARED BY:

Brian Kennedy
Brian Kennedy

4/16/2015
Date

APPROVED BY:

Julie Morris
Julie Morris, Chief
Compliance Section 2

4/17/15
Date

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Purpose of Inspection

A Compliance Evaluation Inspection (CEI) of EES Coke Battery, LLC ("EES" or "facility"), a subsidiary of DTE Energy Services ("DTE"), located at 1400 Zug Island Road, Detroit, Michigan took place between March 17 and 19, 2015 as part of a larger multimedia inspection (MMI) event. The CEI was conducted by U.S. Environmental Protection Agency and Michigan Department of Environmental Quality (MDEQ) personnel and was an evaluation of the facility's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA) and its implementing regulations found in the Michigan Administrative Code and the Code of Federal Regulations. More specifically, the CEI was an evaluation of EES' compliance with the regulations governing large quantity generators of hazardous waste.

The following report details the RCRA portion of the MMI which took place between March 17 and 19, 2015.

Participants

The following persons were present for part or all of the inspection:

Brenna Harden – Environmental Engineer	EES
Joe Clute – By-Products Business Unit Manager	EES
Mike Krchmer – Plant Operations Manager	EES
Terry Wagaman – Safety and Health Manager	EES
Steve Zervas – Corporate Environmental Affairs	EES
Michael Shafer – Technology Business Unit Manager	EES
Ronald Burnette – Plant Manager	EES
Matt Grabowski – Laboratory Manager (Contractor for DTE)	Intertek
Katie Koster – Air Quality Inspector	MDEQ
Mark Moloney – MMI Coordinator and Lead	U.S. EPA
Anne Marie Vincent – MMI Assistant for CWA/RCRA	U.S. EPA
Jonathan Moody – CWA NPDES Inspector	U.S. EPA
Constantinos Loukeris – CAA Inspector	U.S. EPA
Brian Kennedy – RCRA Inspector	U.S. EPA

Introduction

The U.S. EPA inspectors arrived on site on March 17 at 8:30 AM and signed in at the guard shack. Katie Koster of the MDEQ arrived soon afterward and also signed in. Ms. Brenna Harden, Environmental Engineer for EES, arrived at the guard shack and escorted the inspectors to the main office building on site. We proceeded to a conference room where the inspectors presented their credentials and business cards to Ms. Harden. Mr. Terry Wagaman, EES' Safety and Health Manager, Mr. Mike Krchmer, EES' Plant Operations Manager, Mr. Ronald Burnette, EES' Plant Manager, and Mr. Steve Zervas, from DTE's Corporate Environmental Affairs office, joined the opening conference with Ms. Harden. Mr. Moloney provided a summary of the multimedia inspection process and a general outline and schedule of inspection activities, as well as stating the facility's right to claim information or documents obtained during the inspection as confidential business information.

Site Description

The following information about EES is based on personal observations of the EPA inspector and on representations made during the inspection by facility personnel identified above or within the text unless otherwise specified.

Located on Zug Island in the River Rouge area of Detroit, EES produces metallurgical coke in its 85-oven coke battery and processes the coke oven gases ("COG") that are generated in the ovens into tar and light oil chemical products. Because EES processes its COG into products, EES' process is referred to as "by-product" coke-making. This is in contrast to other coke batteries that may simply recirculate the gases back into the coke ovens for thermal destruction, a practice known as "non-recovery" coke-making. The coke battery at EES was effectively rebuilt from the ground up in 1992 when it was still under the operation of National Steel. In 1997 the coke battery was purchased by DTE Energy Services, and has been operated by their subsidiary EES ever since. Coke produced by EES is sold to U.S. Steel, also on Zug Island, as well as ArcelorMittal.

The coke-making process begins at coal blending, where EES combines up to six different types of coal into certain blends and pulverizes the blend to the desired size. No. 2 Diesel oil is added to the coal blend prior to introduction to the oven to increase the mixture's bulk density; approximately six pints of oil for every ton of coal. The coal blend is then conveyed to a dedicated storage bunker above the west end of the coke battery. There, the coal charging machine known as the "Larry" car is loaded with coal and moves east above the ovens along a rail system to deposit coal into each oven as needed. Each oven, approximately 20 feet tall and 1.5 feet wide, is loaded or "charged" with coal by gravity from the Larry car into four ports spaced along its length. Along the southern side of the coke battery, a vehicle known as the door pusher moves along a rail system to push a leveling bar into each newly charged oven. The leveling bar is used to eliminate the four peaks of coal that occur naturally from each oven charging port. Creating a level top surface of the coal ensures more consistent quality coke.

The coal stays in each 2000°F oven for at least 17 hours before being removed by the pusher vehicle, which pushes the contents of the oven out of the north side of the battery into a hot car. The hot car moves along a rail system to a quench tower located at the east end of the battery. There, several thousand gallons of water are used to quench the coke batch and stop it from

combusting in the open air environment. After quenching, the coke is sent to the coke wharf where it is separated by size into metallurgical coke, nut coke, and breeze coke. Nut and breeze coke generally refer to coke that is too small for use in steel blast furnaces, and comprises about 6% of all coke produced by EES. Approximately 35 tons of coal is loaded into an oven during each charging event, producing 25 tons of coke and 10 tons of COG. During peak production, EES produces 117 oven's worth of coke each day. EES produces 1.025 million tons of coke per year.

During the coking process, most of the COG generated is pulled from the ovens into a main line that leads to both U.S. Steel and to EES' by-products ("BP") processing area. COG is also sent to DTE's River Rouge power plant as a coal replacement fuel. The remaining COG, approximately 40%, is recirculated back into the ovens to provide combustion heat. Any excess COG is flared. At peak production EES generates 56 million standard cubic feet of COG per day.

Located northwest of the coke battery, the BP area processes the COG into product tar and light oil chemical products. COG from the battery is first introduced to a primary cooler, where a flushing liquor extracts the heavier components of the gas for further processing. In the production of tar, a mixture of coal tar and flushing liquor move from the primary cooler into one of three tar decanters. The decanters allow lighter product tars, flushing liquor, and tar sludge to separate from each other. The lighter product tar is removed from the decanters and transferred to one of two tar storage tanks before shipment off site. Excess flushing liquor is removed to a temporary storage tank before it is recirculated back into the coke battery. Tar sludge that sinks to the bottom of the decanters is removed by screw conveyors to a mixer tank where the sludge is mixed and lightly heated to remain pumpable. From the mixing tank, the tar is pumped up to the coal conveyor where it is sprayed on the pulverized coal prior charging to the oven. The recycling of the decanter tank tar sludge into the coke battery in this way is a specific hazardous waste exemption found in 40 CFR § 261.4(a)(10). Tar decanter sludge that is not pumpable, contaminated with debris, or leaks or is spilled from the decanters during processing is collected by EES and managed as hazardous waste. The hazardous waste listing for decanter tank tar sludge is K087, but EES applies a blanket profile to waste generated in its BP area consisting of D018, K087, K141, K142, K143, and K144. EES produces around 9 million gallons of product coal tar per year.

In the production of light oils, COG again moves first through the primary coolers where flushing liquor removes the heavier tar fraction of the gas. The lighter fraction continues to a gas exhauster and a tar precipitator. Tar from the precipitator is sent to the decanters described above. Past these units, the lighter COG components move to a series of ammonia scrubbers, secondary coolers and then light oil scrubbers. These scrubbers use a wash oil mixture to remove the light oil from the COG and transfer the mixture to the light oil distillers. During distillation, the wash oil is removed and sent to a decanter before being recirculated into the light oil scrubbers. Before being recirculated, the wash oil is sent through a purifier to remove unwanted constituents. Waste from this wash oil purifier is referred to as wash oil muck, and is a K143 listed hazardous waste. EES profiles this material as D018, K141, K143 and K144 hazardous waste. After distillation, the light oil moves to a series of condensers and separators before being stored in several product tanks prior to off-site shipment. EES produces around 2.5 million gallons of light oil per year.

The entire BP area is bermed and slopes to several stormwater sewers. Liquids and debris in the BP area drain through these sewers to a single containment sump adjacent to the No. 2 Mechanical Shop. This sump transfers liquids into Tank 38 in the northeast corner of the BP area. In Tank 38, gravity separates light oils and tars from stormwater and bottom solids. Tank 38 is periodically drained and light oils and floating tars are pulled off the surface and taken to a "launder" tank, which pumps the material back into the tar decanters. Bottom solids removed from Tank 38 are also taken to the launder tank. Water in Tank 38 is discharged into the Detroit River via Outfall 8, a discharge point managed under the NPDES permit of U.S. Steel.

EES operates a wastewater treatment system north of the east side of the coke battery. Moisture present in the coal is carried within the COG and condenses throughout the by-products process, forming various liquors. Mixed liquor that can't be recycled back into the BP process and booster station sealant waters are sent to the wastewater treatment plant to remove hazardous compounds including ammonia, various organics and mercury before discharge to the Detroit POTW. At a rate of 200 gallons per minute, wastewater first enters the wet surface air coolers in the BP area to lower its temperature. The water is then pumped east to the wastewater treatment area into an equalization basin that shares a tank farm with product tar tanks. Coagulants and polymers are added to the water to generate floc before it moves to a mercury dissolved air flotation unit (DAF). Sludge from the mercury DAF is collected in a sludge holding tank. The water then moves to secondary biological treatment in an aerated activated sludge tank where organic compounds are digested. Past the aeration tank, the water is sent to a final clarifier before discharge to the POTW. Sludge from the clarifier is sent to the same sludge holding tank as the mercury DAF before the material is sent to a centrifuge for dewatering. Dewatered sludge is collected in a roll-off bin below the centrifuge and stored prior to disposal. EES has characterized its wastewater treatment sludge as non-hazardous waste.

The majority of the hazardous waste generated by EES is waste tar and tar-contaminated debris (liners, pallets, shovels, PPE, etc.) in the BP area. As mentioned above, EES applies a blanket profile to this waste with the codes D018, K087, K141, K142, K143, and K144. The wash oil muck generated in light oil processing shares most of these waste listings (D018, K141, K143 and K144), but is generated less frequently. Other hazardous waste streams include aerosol cans (D001, D007 and D035), tail gas solids from the ammonia scrubbers (D002), pre-heater sludge from the battery underfire (D018, D023 and D025), waste wash oil solids (D001, D018, K142, and K143), and COG boiler liquid (D001). Many of these streams are generated during periodic maintenance or unit cleanouts. Hazardous waste is stored in two 90-day areas near the booster station in the west BP area and near the COG flare north of the BP area. EES also maintains several satellite accumulation areas throughout the site. U.S. Ecology (formerly EQ Detroit) assists EES in characterizing and shipping its hazardous waste offsite, as well as non-hazardous waste streams such as used oil.

EES currently has 125 employees on site working staggered 12-hour shifts. The facility is equipped with numerous outdoor alarm systems to indicate certain production operations, emergency situations and railroad traffic. Flame-retardant clothing is required when walking through the plant, and respirators are required on top of the coke battery and in certain sections of the BP area.

Site Tours

March 17 Tour

The morning of March 17 was used to go over the general coking process at EES. Mr. Michael Shafer gave a presentation on the basics of coke-making and the BP process. Afterward, it was agreed that the afternoon would be used for a general tour of the facility, including the coke battery and BP area.

After donning the necessary PPE, Mr. Krehmer and Ms. Harden led the inspectors through the coal charging process on top of the coke battery. We observed several ovens being charged by the Larry car and EES workers using a mud mixture to create a seal around each porthole after it is closed. We proceeded down to the south side of the battery and observed the pusher unit insert the leveling bar into the oven. The tour continued around the east side of the battery to observe an oven being emptied into the hot car and move to the quench tower. Heading west to the BP area, Ms. Harden pointed out several breeze coke storage areas and a raised hopper that is used to fill dump trucks with breeze coke for shipment.

At the BP area, we signed in to an attendance record at a control room and met Mr. Joe Clute, the BP's business unit manager. Mr. Clute gave a quick summary of the processes occurring in the BP area, including tar and light oil separation. We observed COG condensate tanks, tar decanters, tar decanter mix tank and conveyor, light oil storage tanks, liquor storage tanks, and BTEX storage tanks in the BP area. EES had provided several process flow diagrams for the BP area, including one that described a phenol extraction process. We were told that this phenol process was discontinued in 2008-2009.

Heading back east to the wastewater treatment area, Mr. Clute and Ms. Harden pointed out the discontinued sulfate processing plant which lies north of the coke battery and separates the BP area to the west and the wastewater treatment area to the east. U.S. Steel owns the property on which the sulfate plant sits, and plans on demolishing the building in the near future. At the time of the inspection, the building appeared abandoned and was fenced off to prevent any access.

We briefly toured the wastewater treatment plant and saw the primary and secondary treatment processes, including the mercury DAF system, the aeration tank, final clarifier, and centrifuge. After the wastewater treatment plant, we headed back to the main office.

We told Ms. Harden that we planned on conducting a RCRA-specific inspection the following morning. The day ended at 4:30 PM.

March 18 Tour

The inspectors arrived on site at 8:30 AM at the guard station and waited for Ms. Harden to allow us in. After arriving in the main office, I told Ms. Harden and Mr. Clute that I would like to focus on the BP area that morning and follow both the tar and light oil processes, as well as the waste streams generated from either process. Inspectors Loukeris and Koster stayed in the main office that morning to review CAA records.

Mr. Clute and Ms. Harden led us to the control room to sign into the BP area. There were television screens inside the control room that were monitoring the application of decanter tank tar sludge on the pulverized coal as it was conveyed to the coke battery. However, no sludge was being applied at that time in the morning.

Mr. Clute started the tour at the BP area's two primary coolers, some of the first units the COG passes through after the battery where flushing liquor extracts the heavier, tar components of the gas. Directly east of the primary coolers is a flushing liquor pump house. In between the north primary cooler and the pump house was small set of piping where it appeared a spill had recently occurred. Mr. Clute stated they had been performing repairs in the area. A mixture of what appeared to be tar, water, and peat moss was draining from this area around a small dumpster and into one the BP area's stormwater drains (See Photos 1, 2 and 3 in Attachment A: Inspection Photographs). I asked Ms. Harden what EES would do with the tar solids on the ground. She said the material would be containerized and shipped off site as hazardous waste coal tar debris. Mr. Clute said the drain into which the mixture was flowing led to the containment sump and eventually Tank 38.

We continued to the tar decanters just east of the flushing liquor pump house. Mr. Clute pointed out the screw conveyors which lift the tar sludge from the decanters and into the mixer tank. The area below each screw conveyor was in containment. There was a significant amount of water and tar sludge in the containment area, as well some peat moss. Mr. Clute said the liquids in the containment would be vacuumed out and placed back into the decanters, while the tar solids would be containerized and managed as hazardous waste (See Photos 4 and 5). The containment system in which the decanters and mixer tank sit is designated as a hazardous waste satellite accumulation area for tar and tar-contaminated debris (See Photo 6). There were no drums of hazardous waste in the area during the inspection.

The north tar decanter had a steel box near the screw conveyor (visible in Photo 5) that would collect a portion of the tar that fell from the system. Mr. Clute explained that the tar that falls into these boxes was usable and could be placed back into the decanters, but the tar that fell to the containment area was unusable because of the risk of grit and other debris entering the system. There were a number of additional steel boxes in the area that would be used to collect tar sludge in the event a screw conveyor would fail. At least one box in the area appeared full of tar sludge. Tar collected in these boxes would be emptied into a nearby hopper that transfers the tar onto the common conveyor system that leads to the mixer tank (See Photo 7). The hopper was in a small containment area that was full of tar sludge (See Photo 8). There was more tar sludge and water on the ground outside the south side of the decanter containment area (See Photos 9 and 10).

The tour continued to the containment sump where the BP area's stormwater sewer drains and is transferred to Tank 38. Mr. Clute explained that any solids that may be cleaned out of the sump are placed in the launder tank for re-introduction into the decanters, unless the solids removed contain debris, in which case the material would be a waste. We continued to Tank 38 in the northeast BP area. Mr. Clute said that oils and light tars that float in the tank are drained into the launder tank to be placed back in the decanters. Any solids removed from the tank are also placed in the launder tank. Water in Tank 38 discharges through Outfall 8 on U.S. Steel's property and is monitored in accordance with their NPDES permit. There were several inches of

free liquid in the containment area of Tank 38, including what appeared to be oil with a yellow sheen (See Photo 11). Mr. Clute said the sump inside the containment was not operational but that the liquid would be pumped out and placed in the launder tank.

Mr. Clute and Ms. Harden led the tour to the launder tank, which lies on the east side of EES' property in the containment area with the two large product tar storage tanks and the wastewater treatment equalization tanks. The launder tank is a smaller horizontal tank inside the western side of the containment area. Mr. Clute pointed out the pump and strainer which pulls material into the launder tank for processing. The launder tank pumps material only to the tar decanters in the BP area. We entered the containment area and observed the launder tank and the two 750,000 gallon tar storage tanks. There was a hazardous waste satellite accumulation drum near the launder tank used to clean up tar spills and leaks and contaminated debris (See Photos 12 and 13). The drum was labeled as hazardous waste. Mr. Clute said any liquids in this containment area are pumped to the excess liquor tank.

In the wastewater treatment building, Mr. Clute explained the water treatment process in more detail. We observed the mercury DAF, various chemical storage tanks, and the sludge centrifuge and roll-off box. There was no hazardous waste observed in the wastewater treatment area.

We proceeded back to the BP area where Mr. Clute explained the light oil production process. After the COG has passed through the primary coolers, gas exhauster, tar precipitator and ammonia scrubbers, wash oil flushes the light oil in the light oil scrubbers to the distillation process to produce product chemicals. Mr. Clute explained the wash oil recirculation process and wash oil decanters. At the wash oil purifier, Ms. Harden pointed out a red steel box which accumulates hazardous waste wash oil muck (See Photo 14). Several times a year, EES will remove the wash oil muck from the box, place it in drums, and ship it off site.

Ms. Harden led the tour to EES' 90-day hazardous waste storage pad at the west side of the BP area near the COG booster station, the building which controls COG movement through EES' process lines. There were approximately 30 55-gallon drums of hazardous waste on wooden pallets in the outdoor storage area, the majority of which were coal tar debris and wash oil muck (See Photos 15 and 16). All drums appeared to be labeled as hazardous waste and dated, with the earliest date observed as 3/6/15. There were also several drums of waste grease and used oil in the area. The drums were labeled as "Used Oil." The storage pad itself was bermed and spill kits were available nearby.

The tour broke for lunch before continuing again later in the afternoon to visit wastewater effluent points, primarily in the BP area. Inspector Loukeris led the tour to the wet surface air coolers, COG booster station sumps, and the interceptor sump in the BP area. I asked if the interceptor sump, which is part of the light oil production process, is ever emptied to remove accumulated sludge or debris. Ms. Harden and Mr. Clute said they could not recall the last time the sump was emptied.

The tour concluded for the day and I discussed with Ms. Harden plans to use the next day to tour other RCRA-related areas, including any other 90-day storage areas, satellite accumulation areas, and universal waste storage spaces. The inspectors left at 4:30 PM.

March 19 Tour

The inspectors arrived on site at 8:30 AM on March 19 at the guard station and waited for Ms. Harden to again allow us to access the site. Hazardous waste records were reviewed during the morning, while a tour of remaining RCRA areas was planned for the afternoon.

We had requested to speak with EES' laboratory manager to discuss the type of testing that is conducted as well as any waste streams that are generated. EES' laboratory is run by Intertek, a contractor with a standalone structure adjacent to the main office with the address 1401 Zug Island Road. We spoke with Mr. Matt Grabowski, Intertek's Branch Manager for the EES location. Mr. Grabowski described the testing conducted on site, including general physical and chemical assessments of coke, coal and tar materials. Mr. Grabowski provided a brief tour of the Intertek laboratory. Waste generated by the lab includes contaminated glassware and related solids. Intertek maintained a small hazardous waste storage area outside the laboratory which contained four 55-gallon drums of waste. The drums were labeled as hazardous waste. Mr. Grabowski said Heritage Environmental Services picks up the hazardous waste for disposal. Intertek ships the waste off site under its own EPA ID number: MIK537734147.

The afternoon tour of RCRA areas began at EES' maintenance shop southwest of the main office. There were two 55-gallon drums along the outside of the shop to accumulate waste aerosol cans and batteries (See Photo 17). The drum of aerosol cans was labeled as hazardous waste.

The next waste area toured was a small bermed area inside the booster station building in the BP area. There were a variety of product chemicals in the area, and one large container of used oil (See Photo 18). The tank was labeled as "Used Oil."

Ms. Harden led the tour to EES' second 90-day hazardous waste storage area near the COG flare north of the BP area. There were two covered roll-off boxes holding waste coal tar contaminated debris, including wooden pallets, shovels, and PPE. Both boxes were labeled as hazardous waste, and both were dated 3/10/15 (See Photos 19 and 20).

The tour continued to EES' Mechanical Shop just east of the BP area. In a small outdoor waste area were two 55-gallon drums to accumulate aerosol cans and used batteries (See Photo 21). Both drums were labeled. Inside the shop was another universal waste storage area that held four boxes of fluorescent bulbs and a small used oil storage area which had a drum of oil and bucket of oil-contaminated rags (See Photo 22). The boxes of spent bulbs were dated 3/13/15.

The tour ended at a satellite accumulation area along the south side of the coke battery. There were three drums in the area to collect waste aerosol cans, used batteries and other universal wastes (See Photo 23). The drum for aerosol cans was labeled as hazardous waste.

Record Review

The following EES records were reviewed on March 18 and 19:

- Hazardous waste manifests and related land disposal restriction notification forms for the previous three years

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

- Biennial hazardous waste reports as submitted to MDEQ for the previous three years
- Waste characterization or determination records for EES' waste streams
- EES' integrated contingency plan
- Personnel training records for hazardous waste management for the previous three years
- Hazardous waste storage area inspection logs

Several maps and diagrams of EES are in Attachment B.

Process flow diagrams for the BP area processes and wastewater treatment operation are in Attachment C.

EES maintains tracking logs for its hazardous waste shipments and had several years' worth of logs available during the inspection. The shipments to date in March 2015 included drums and roll-off boxes of hazardous waste coal tar debris, drums of hazardous waste wash oil muck, hazardous waste aerosol cans, used oil and universal wastes. Hazardous waste manifests were reviewed with the tracking logs. The waste coal tar and tar contaminated debris are taken to Ross Incineration Services for destruction, while other hazardous waste streams are generally taken to U.S. Ecology for other processing. The hazardous waste transporter used by EES is frequently Aquilex Hydrochem, LLC or IISG Central Region, LLC. All manifests reviewed were signed and complete. The manifest tracking logs and a sample manifest dated 2/15/15 are in Attachment D.

Hazardous and non-hazardous waste profiles were maintained in separate binders. Some of the hazardous waste profiles reviewed included coal tar and tar contaminated debris, wash oil muck, COG boiler liquid, aerosol cans, pre-heater sludge, tail gas solids, tar blow down debris, and wash oil solids. Each profile had completed land disposal restriction notification forms. Non-hazardous waste profiles reviewed included wastewater treatment plant sludge, COG condensate contaminated soil, coal baghouse dust, and Safety-Kleen solvents. Waste profiles for coal tar debris and wash oil muck are in Attachment E.

Three years of hazardous waste storage logs were reviewed. Current logs include weekly inspections of the following areas: booster station (90-day pad), area near COG flare (90-day area), and the satellite accumulation areas at the booster station building, tar decanters, maintenance shop, mechanical shop, and coke battery.

Hazardous waste refresher training was most recently held in February and March of 2015. A sample presentation was reviewed which included contingency plan implementation and general hazardous waste identification and management. Similar presentations were reviewed from 2014, 2013, and 2012. Attendance records for each yearly session were available, as were spreadsheets of individual employee training requirements and new hire training requirements.

EES maintains an Integrated Contingency Plan ("ICP") to meet the requirements for SPCC, RCRA, OSHA, and other applicable regulations. The ICP had a dedicated RCRA section which summarized the regulatory requirements for large quantity generators of hazardous waste. The plan lists individual shift managers as the primary emergency coordinators (when applicable) and Brenna Harden as the secondary coordinator, as well as their contact information. Section 6 of

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

the ICP contained hazardous waste spill response actions, internal and external points of contact, and evacuation information. Several appendices provide the necessary evacuation maps and list the emergency equipment on site and its location.

Closing Conference

I provided a RCRA closing conference on March 19 to Ms. Harden, Mr. Clute, and Mr. Krehmer. I stated my concern for the management of waste tars in and around the BP area, specifically the area around the tar decanters and the primary coolers, as well as storm or process water commingling with spilled or leaked tar and carrying the mixture to Tank 38 and eventually the NPDES outfall. I stated that EES would receive a hard copy of the RCRA report which summarizes the inspection and provides copies of all photographs taken during the inspection. I also stated EES would receive a copy of the RCRA compliance evaluation inspection report which had occurred in 2014.

EES did not claim any information as confidential during the inspection.

The inspection ended at approximately 4:00 PM on March 19.

Inspection Follow-Up

On March 20, I sent an email to Ms. Harden containing EPA's Small Business and Pollution Prevention information sheets.

Attachments

- A. Inspection Photographs
- B. Facility Diagrams
- C. Process Flow Diagrams
- D. Manifest Tracking Logs and Sample Manifest
- E. Selected Waste Profiles
- F. Inspection Checklists

ATTACHMENT A: Inspection Photographs

Photographers: Ann-Marie Vincent and Brian Kennedy

RCRA Photo-Log

Photo	Description	Date	Time (EST)
1	A spill or leak of a mixture of waste tar, water and peat moss in the BP area between the primary coolers and flushing liquor pump house	3/18/15	9:55 AM
2	Closer view of the leak in Photo 1.	3/18/15	9:55 AM
3	More waste tar, water, and peat moss from the same leak in Photos 1 and 2	3/18/15	9:55 AM
4	The screw conveyor at the north tar decanter in the BP area	3/18/15	10:08 AM
5	A clearer view of the screw conveyor in Photo 4 that displays tar and water in the containment area	3/18/15	10:08 AM
6	Designated hazardous waste satellite accumulation area in the containment area of the tar decanter mixer tank	3/18/15	10:21 AM
7	The hopper near the tar decanters which allows collected tar to be placed back into the system	3/18/15	10:21 AM
8	Tar sludge in the containment of the hopper in Photo 7	3/18/15	10:25 AM
9	Tar sludge and water outside the containment area of the tar decanters in the BP area	3/18/15	10:27 AM
10	Closer view of the free tar sludge and water in Photo 9	3/18/15	10:27 AM
11	Free liquids inside the containment of Tank 38 in the BP area	3/18/15	10:42 AM
12	Hazardous waste satellite accumulation drum in the containment area near the launder tank	3/18/15	10:53 AM
13	A closer view of the label of the drum in Photo 12	3/18/15	10:54 AM
14	Wash oil muck accumulation container in the BP area	3/18/15	11:30 AM
15	Hazardous and non-hazardous waste drums in the 90-day storage pad west of the booster station building	3/18/15	11:41 AM
16	Another view of the hazardous waste storage pad in Photo 15	3/18/15	11:41 AM
17	Satellite accumulation drums for waste aerosol cans and batteries outside the maintenance shop	3/19/15	2:00 PM
18	Used oil container in the booster station storage pad	3/19/15	2:13 PM
19	Roll-off box at the COG flare storing hazardous waste coal tar debris	3/19/15	2:19 PM
20	Second roll-off box at the COG flare that was also storing hazardous waste coal tar debris	3/19/15	2:20 PM
21	Satellite accumulation drums for waste aerosol cans and batteries at the mechanical shop	3/19/15	2:27 PM
22	Containers of waste bulbs in the mechanical shop	3/19/15	2:29 PM
23	Satellite accumulation drums for waste aerosol cans, batteries and other universal wastes at the coke battery	3/19/15	2:38 PM

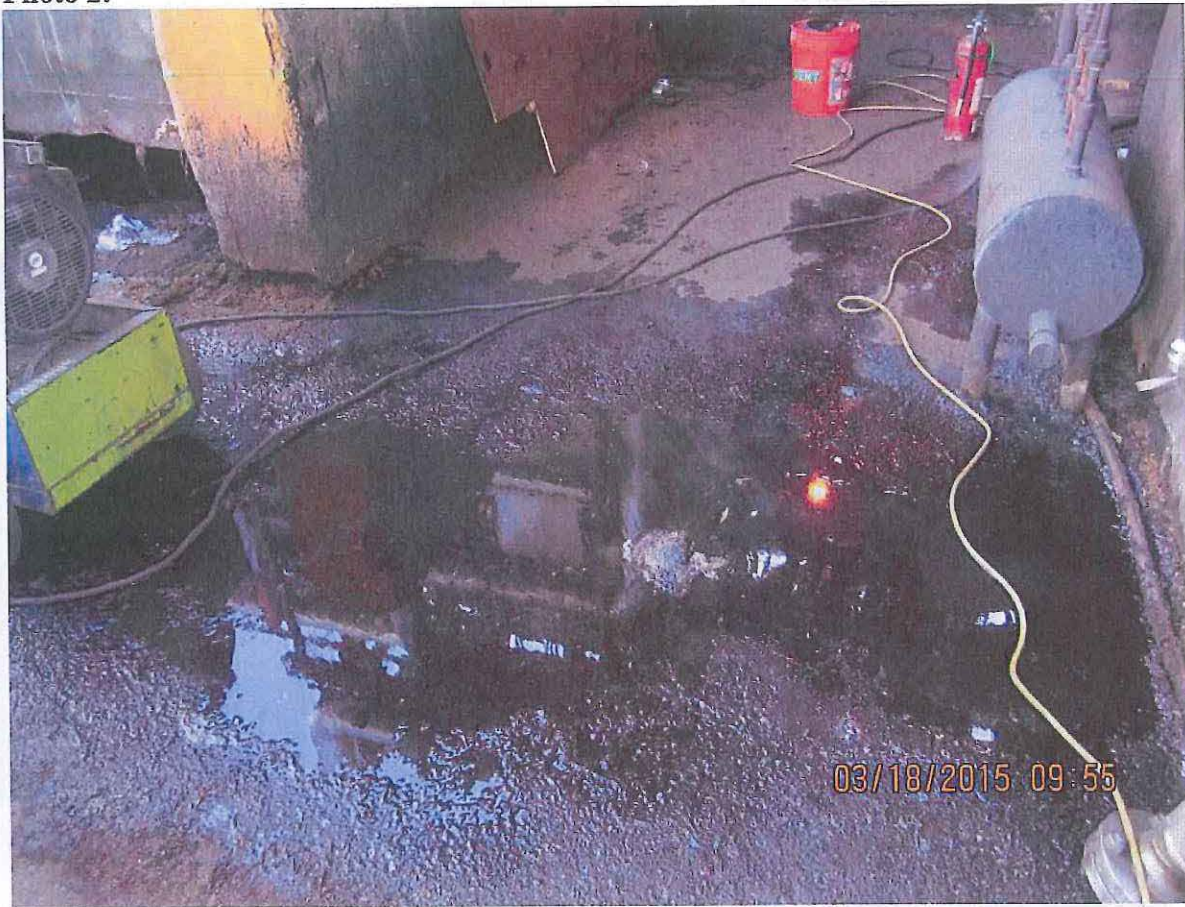
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 1:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 2:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 3:



BES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 4:



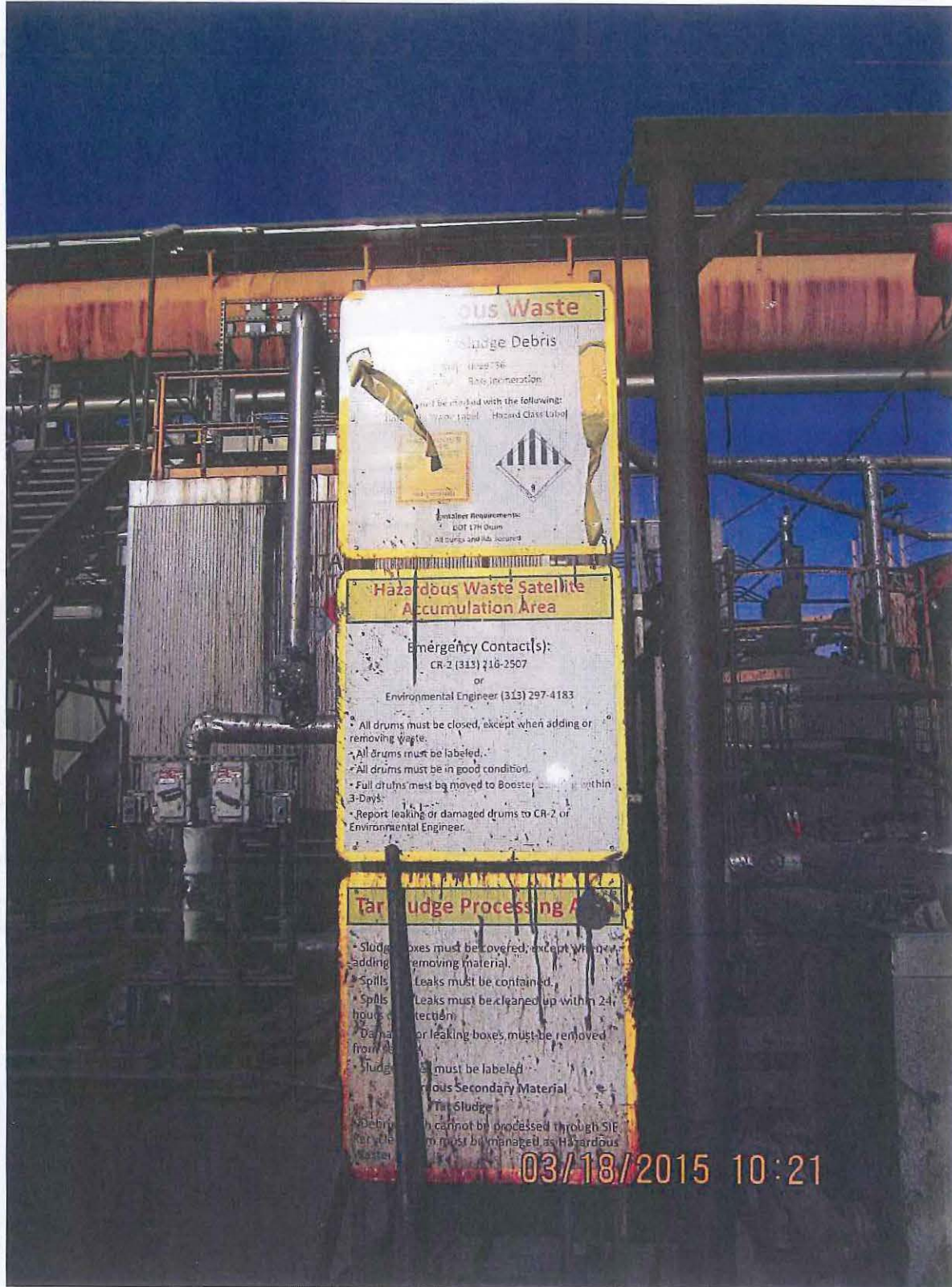
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 5:



March 17-19, 2015

Photo 6:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 7:



03/18/2015 10:21

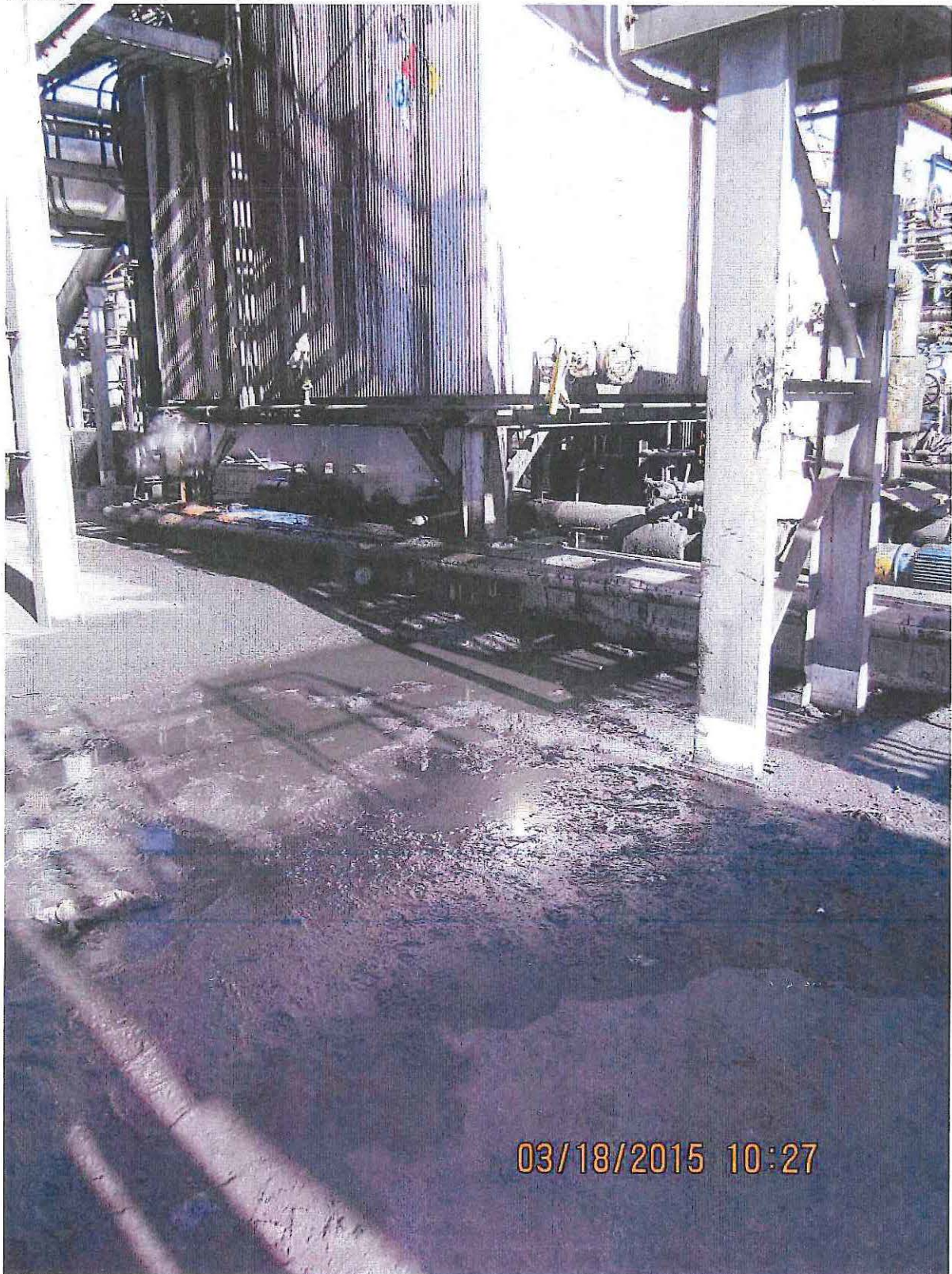
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 8:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 9:



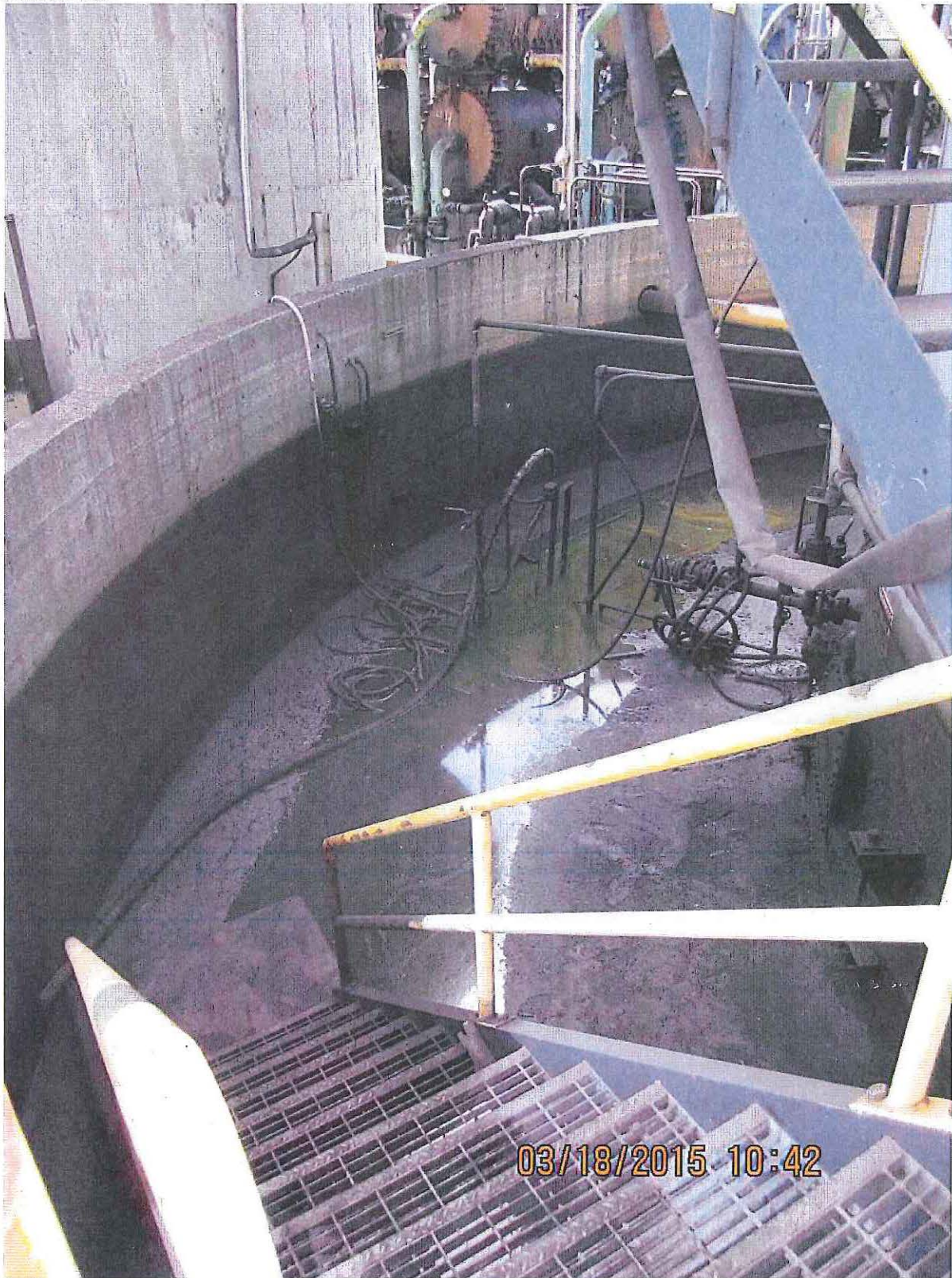
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 10:



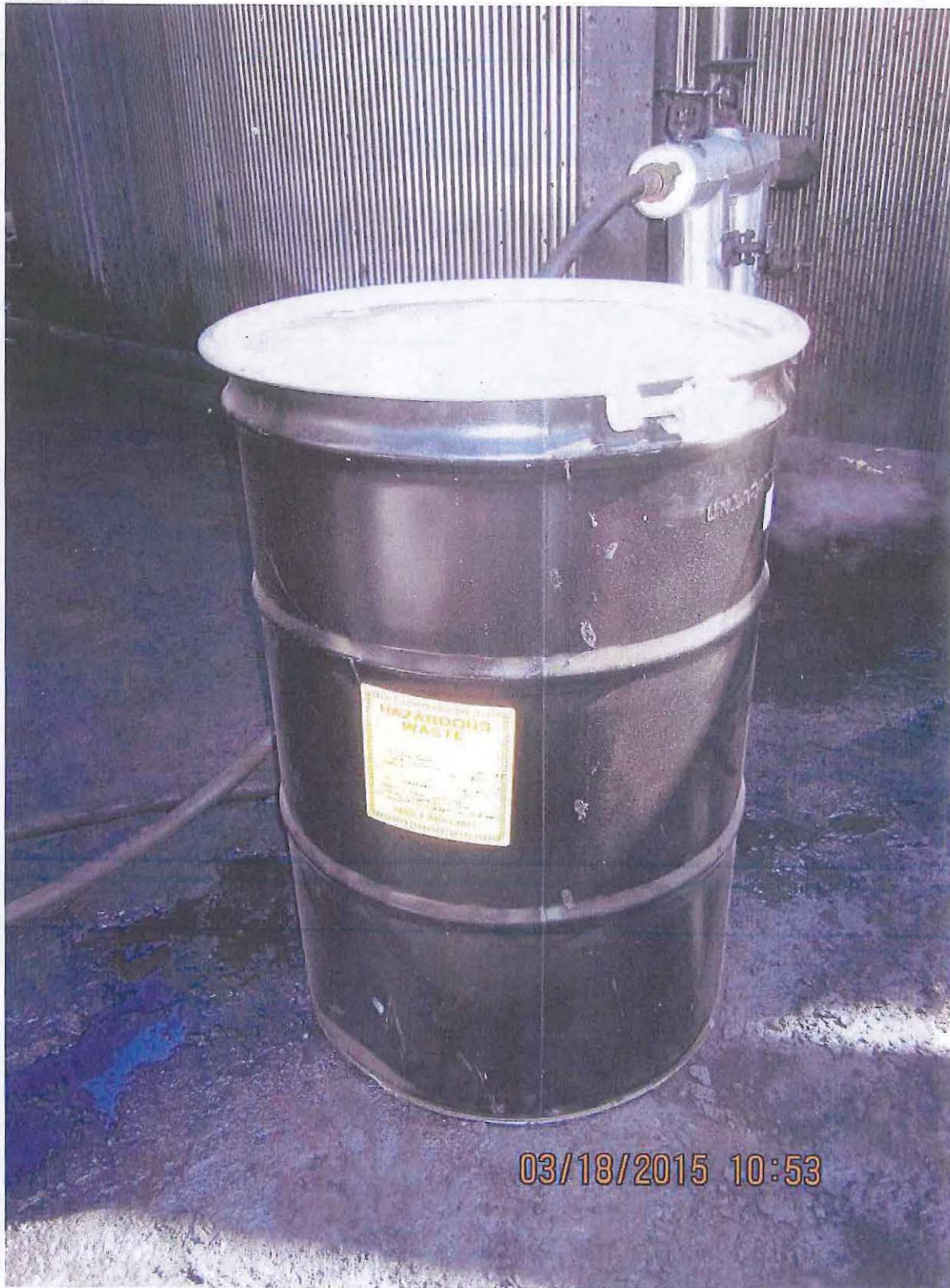
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 11:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

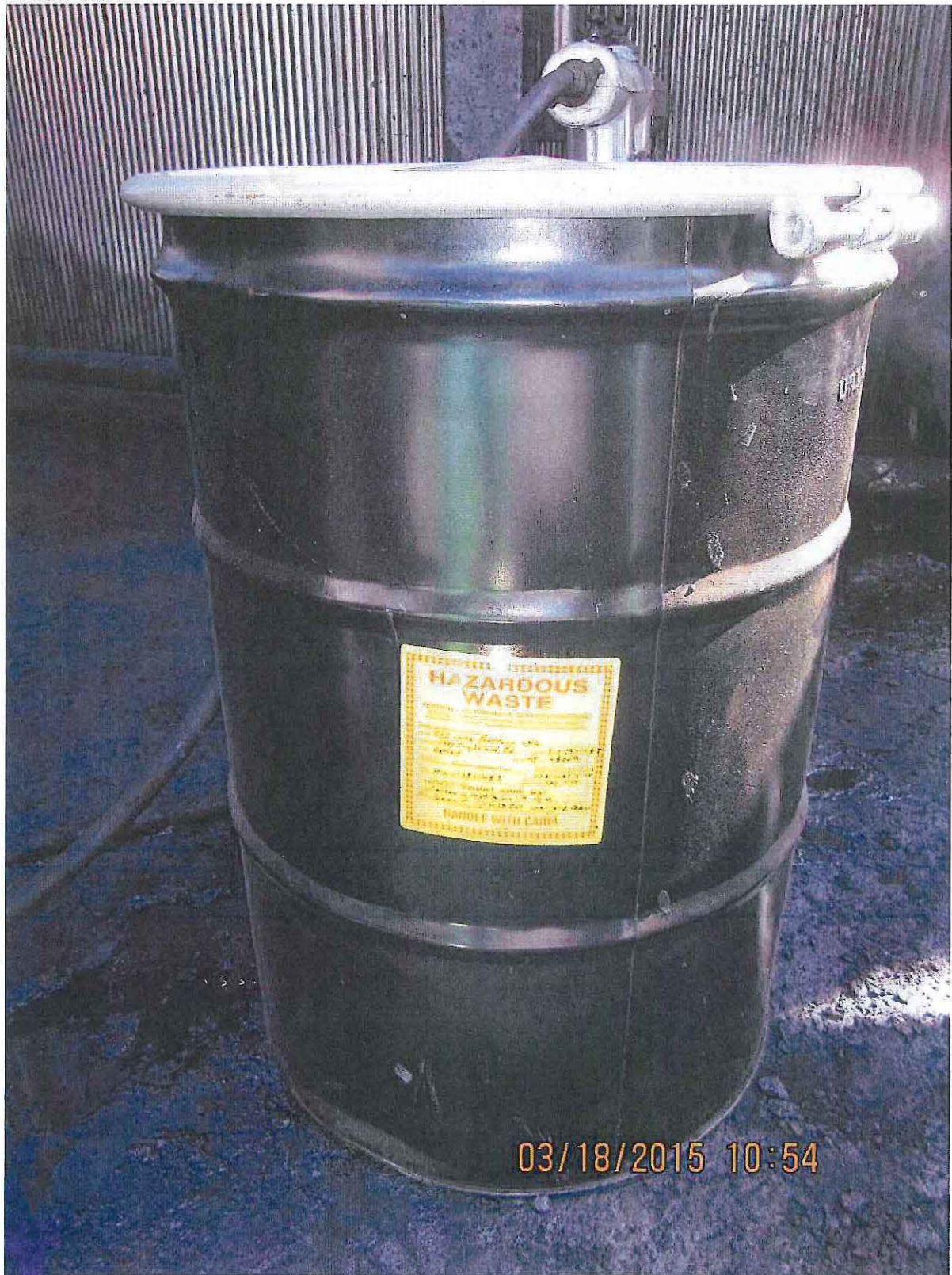
Photo 12:



03/18/2015 10:53

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 13:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 14:



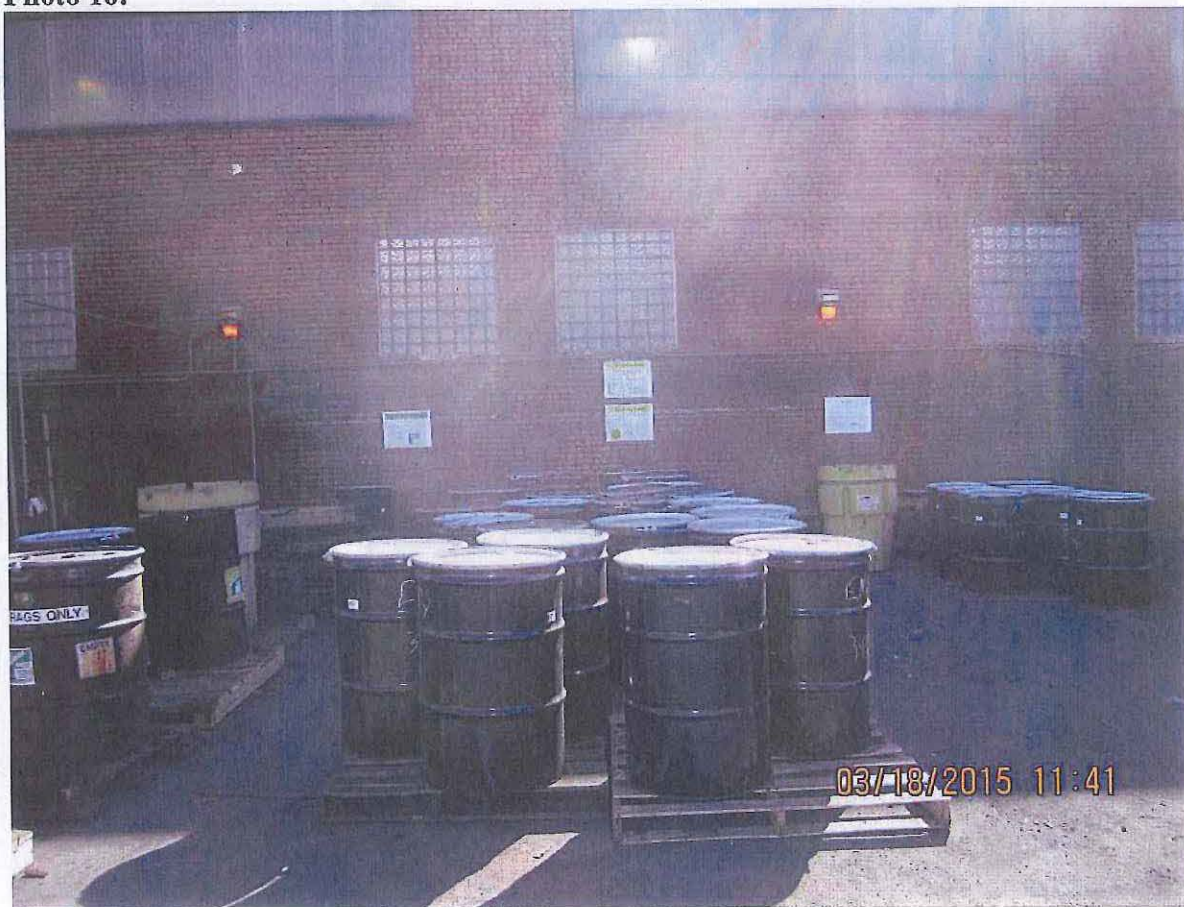
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 15:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 16:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 17:



BES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 18:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 19:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 20:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 21:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 22:



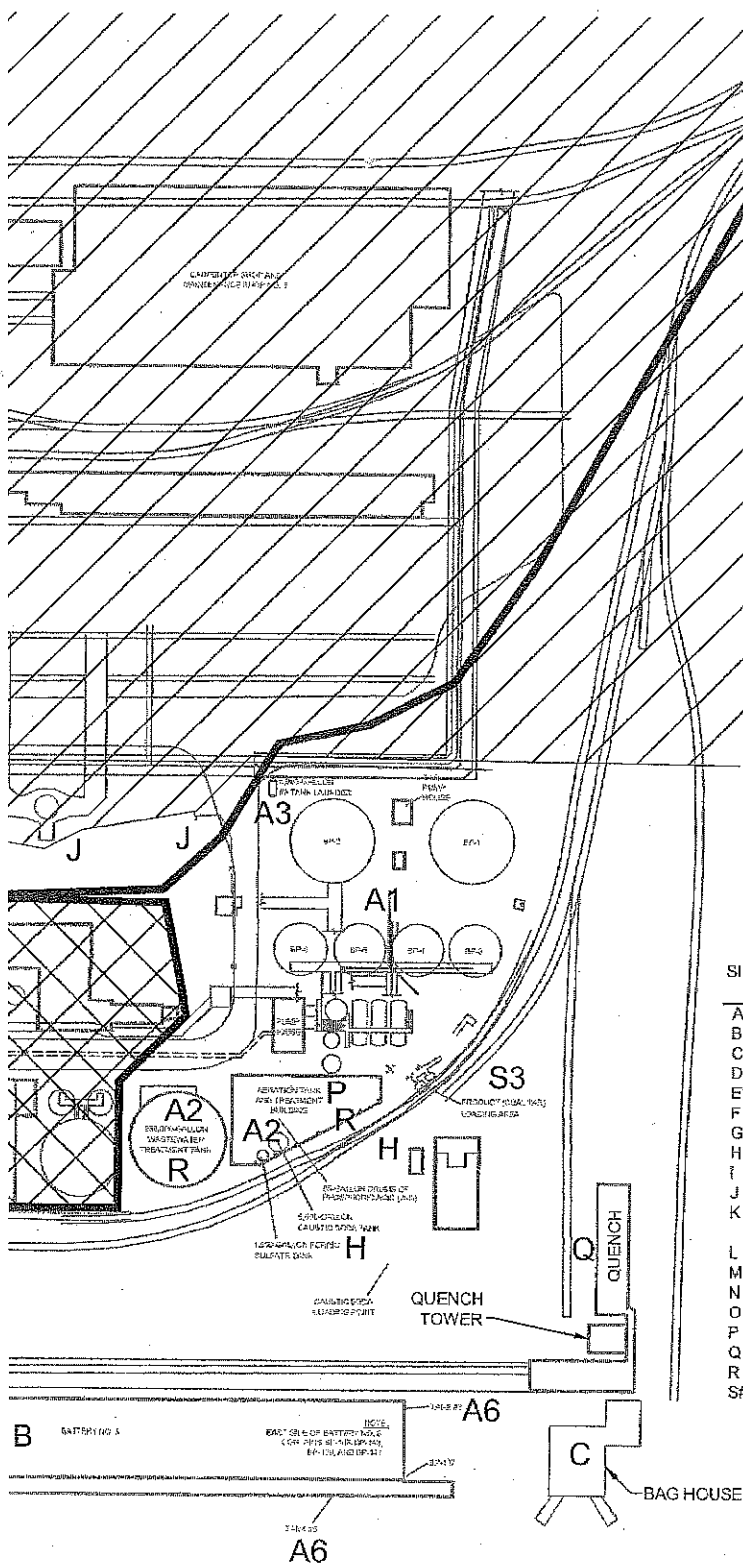
EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

Photo 23:



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

ATTACHMENT B: Facility Diagrams



- LEGEND**
- OVERHEAD COAL CONVEYOR
 - BYPRODUCTS TRENCH DRAIN COLLECTION SYSTEM
 - STORM SEWER
 - STORMWATER FLOW
 - ▨ CONTROLLED BY U.S. STEEL

- SIGNIFICANT OUTDOOR STORAGE AREAS**
- A# AST AREA LOCATION (SEE TABLE 3-1)
 - B BATTERY #5
 - C BAG HOUSES
 - D BP COOLER
 - E BY-PRODUCTS (BP) AREA
 - F COKE HANDLING (FIG2)
 - G COAL LOADING
 - H COAL TAR & LOADING
 - I COAL HANDLING (FIG 2)
 - J CONTRACTOR AREA
 - K SCOOP AREAS (TEMPORARY COKE STORAGE)
 - L SHOP - ELECTRICAL #1
 - M SHOP - MECHANICAL # 2
 - N SIF (TAR & WASTE)
 - O WAREHOUSE
 - P OIL-FILLED TRANSFORMERS
 - Q QUENCH AREA
 - R WASTEWATER TREATMENT PLANT
 - S# SPILL LOCATION (SEE TABLE 3.2)

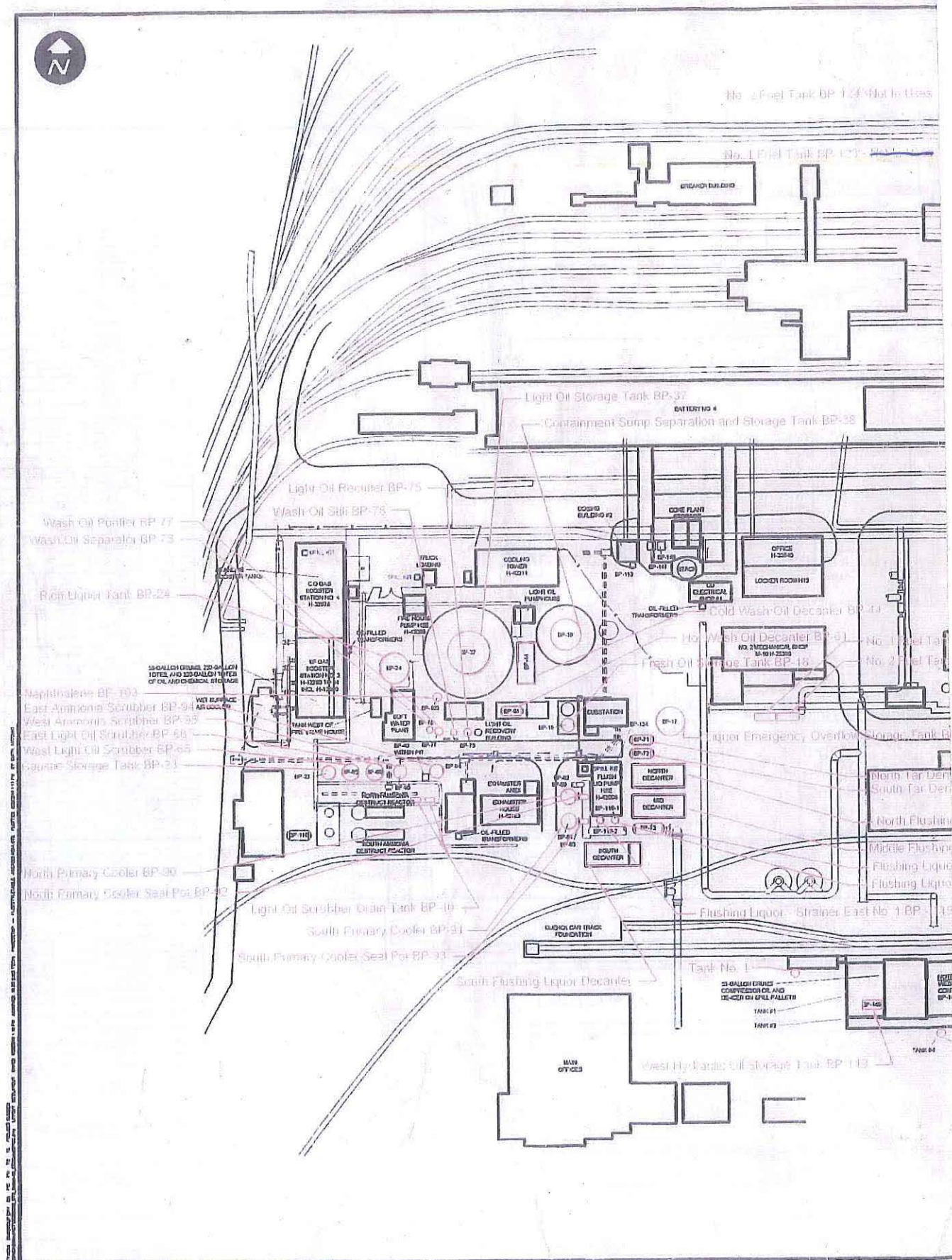
ABOVE GROUND STORAGE TANKS A

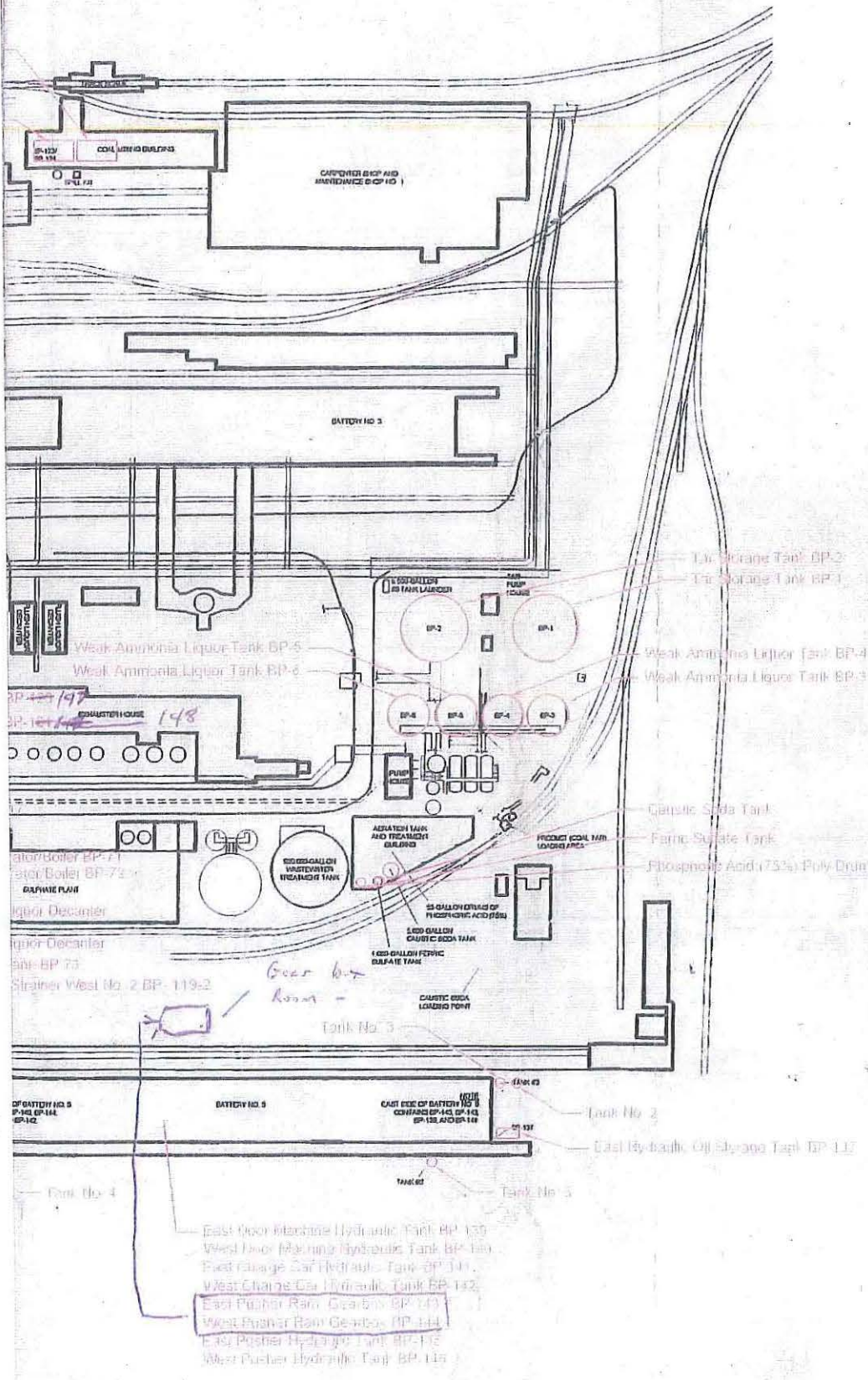
Tank / Container ID	Tank / Container Name	Capacity	Storage Capacity (gallons)
0001	1000 Gallon Fuel Oil Tank	1000	4200
0002	1000 Gallon Fuel Oil Tank	1000	4200
0003	1000 Gallon Fuel Oil Tank	1000	4200
0004	1000 Gallon Fuel Oil Tank	1000	4200
0005	1000 Gallon Fuel Oil Tank	1000	4200
0006	1000 Gallon Fuel Oil Tank	1000	4200
0007	1000 Gallon Fuel Oil Tank	1000	4200
0008	1000 Gallon Fuel Oil Tank	1000	4200
0009	1000 Gallon Fuel Oil Tank	1000	4200
0010	1000 Gallon Fuel Oil Tank	1000	4200
0011	1000 Gallon Fuel Oil Tank	1000	4200
0012	1000 Gallon Fuel Oil Tank	1000	4200
0013	1000 Gallon Fuel Oil Tank	1000	4200
0014	1000 Gallon Fuel Oil Tank	1000	4200
0015	1000 Gallon Fuel Oil Tank	1000	4200
0016	1000 Gallon Fuel Oil Tank	1000	4200
0017	1000 Gallon Fuel Oil Tank	1000	4200
0018	1000 Gallon Fuel Oil Tank	1000	4200
0019	1000 Gallon Fuel Oil Tank	1000	4200
0020	1000 Gallon Fuel Oil Tank	1000	4200
0021	1000 Gallon Fuel Oil Tank	1000	4200
0022	1000 Gallon Fuel Oil Tank	1000	4200
0023	1000 Gallon Fuel Oil Tank	1000	4200
0024	1000 Gallon Fuel Oil Tank	1000	4200
0025	1000 Gallon Fuel Oil Tank	1000	4200
0026	1000 Gallon Fuel Oil Tank	1000	4200
0027	1000 Gallon Fuel Oil Tank	1000	4200
0028	1000 Gallon Fuel Oil Tank	1000	4200
0029	1000 Gallon Fuel Oil Tank	1000	4200
0030	1000 Gallon Fuel Oil Tank	1000	4200
0031	1000 Gallon Fuel Oil Tank	1000	4200
0032	1000 Gallon Fuel Oil Tank	1000	4200
0033	1000 Gallon Fuel Oil Tank	1000	4200
0034	1000 Gallon Fuel Oil Tank	1000	4200
0035	1000 Gallon Fuel Oil Tank	1000	4200
0036	1000 Gallon Fuel Oil Tank	1000	4200
0037	1000 Gallon Fuel Oil Tank	1000	4200
0038	1000 Gallon Fuel Oil Tank	1000	4200
0039	1000 Gallon Fuel Oil Tank	1000	4200
0040	1000 Gallon Fuel Oil Tank	1000	4200
0041	1000 Gallon Fuel Oil Tank	1000	4200
0042	1000 Gallon Fuel Oil Tank	1000	4200
0043	1000 Gallon Fuel Oil Tank	1000	4200
0044	1000 Gallon Fuel Oil Tank	1000	4200
0045	1000 Gallon Fuel Oil Tank	1000	4200
0046	1000 Gallon Fuel Oil Tank	1000	4200
0047	1000 Gallon Fuel Oil Tank	1000	4200
0048	1000 Gallon Fuel Oil Tank	1000	4200
0049	1000 Gallon Fuel Oil Tank	1000	4200
0050	1000 Gallon Fuel Oil Tank	1000	4200
0051	1000 Gallon Fuel Oil Tank	1000	4200
0052	1000 Gallon Fuel Oil Tank	1000	4200
0053	1000 Gallon Fuel Oil Tank	1000	4200
0054	1000 Gallon Fuel Oil Tank	1000	4200
0055	1000 Gallon Fuel Oil Tank	1000	4200
0056	1000 Gallon Fuel Oil Tank	1000	4200
0057	1000 Gallon Fuel Oil Tank	1000	4200
0058	1000 Gallon Fuel Oil Tank	1000	4200
0059	1000 Gallon Fuel Oil Tank	1000	4200
0060	1000 Gallon Fuel Oil Tank	1000	4200
0061	1000 Gallon Fuel Oil Tank	1000	4200
0062	1000 Gallon Fuel Oil Tank	1000	4200
0063	1000 Gallon Fuel Oil Tank	1000	4200
0064	1000 Gallon Fuel Oil Tank	1000	4200
0065	1000 Gallon Fuel Oil Tank	1000	4200
0066	1000 Gallon Fuel Oil Tank	1000	4200
0067	1000 Gallon Fuel Oil Tank	1000	4200
0068	1000 Gallon Fuel Oil Tank	1000	4200
0069	1000 Gallon Fuel Oil Tank	1000	4200
0070	1000 Gallon Fuel Oil Tank	1000	4200
0071	1000 Gallon Fuel Oil Tank	1000	4200
0072	1000 Gallon Fuel Oil Tank	1000	4200
0073	1000 Gallon Fuel Oil Tank	1000	4200
0074	1000 Gallon Fuel Oil Tank	1000	4200
0075	1000 Gallon Fuel Oil Tank	1000	4200
0076	1000 Gallon Fuel Oil Tank	1000	4200
0077	1000 Gallon Fuel Oil Tank	1000	4200
0078	1000 Gallon Fuel Oil Tank	1000	4200
0079	1000 Gallon Fuel Oil Tank	1000	4200
0080	1000 Gallon Fuel Oil Tank	1000	4200
0081	1000 Gallon Fuel Oil Tank	1000	4200
0082	1000 Gallon Fuel Oil Tank	1000	4200
0083	1000 Gallon Fuel Oil Tank	1000	4200
0084	1000 Gallon Fuel Oil Tank	1000	4200
0085	1000 Gallon Fuel Oil Tank	1000	4200
0086	1000 Gallon Fuel Oil Tank	1000	4200
0087	1000 Gallon Fuel Oil Tank	1000	4200
0088	1000 Gallon Fuel Oil Tank	1000	4200
0089	1000 Gallon Fuel Oil Tank	1000	4200
0090	1000 Gallon Fuel Oil Tank	1000	4200
0091	1000 Gallon Fuel Oil Tank	1000	4200
0092	1000 Gallon Fuel Oil Tank	1000	4200
0093	1000 Gallon Fuel Oil Tank	1000	4200
0094	1000 Gallon Fuel Oil Tank	1000	4200
0095	1000 Gallon Fuel Oil Tank	1000	4200
0096	1000 Gallon Fuel Oil Tank	1000	4200
0097	1000 Gallon Fuel Oil Tank	1000	4200
0098	1000 Gallon Fuel Oil Tank	1000	4200
0099	1000 Gallon Fuel Oil Tank	1000	4200
0100	1000 Gallon Fuel Oil Tank	1000	4200

EES COKE BATTERY, LLC
 1400 ZUG ISLAND ROAD
 DETROIT, MICHIGAN

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MATERIAL STORAGE DETAIL AND EES COKE DRAINAGE

FIGURE
3





Tank / Container ID	Tank / Container Name	Contents	Storage Capacity (gallons)
BP-145	East Garage Car Hydraulic Tank BP-145	Hydraulic Oil	1,500
BP-144	West Garage Car Hydraulic Tank BP-144	Hydraulic Oil	1,500
BP-141	East Garage Car Hydraulic Tank BP-141	Hydraulic Oil	1,500
BP-142	West Garage Car Hydraulic Tank BP-142	Hydraulic Oil	1,500
BP-130	East Door Marine Hydraulic Tank BP-130	Hydraulic Oil	1,500
BP-131	West Door Marine Hydraulic Tank BP-131	Hydraulic Oil	1,500
BP-143	East Pusher Ram Gearbox BP-143	Hydraulic Oil	1,500
BP-144	West Pusher Ram Gearbox BP-144	Hydraulic Oil	1,500
BP-145	East Pusher Hydraulic Tank BP-145	Hydraulic Oil	1,500
BP-146	West Pusher Hydraulic Tank BP-146	Hydraulic Oil	1,500
BP-132	East Garage Car Hydraulic Tank BP-132	Hydraulic Oil	1,500
BP-133	West Garage Car Hydraulic Tank BP-133	Hydraulic Oil	1,500
BP-134	East Door Marine Hydraulic Tank BP-134	Hydraulic Oil	1,500
BP-135	West Door Marine Hydraulic Tank BP-135	Hydraulic Oil	1,500
BP-136	East Pusher Ram Gearbox BP-136	Hydraulic Oil	1,500
BP-137	West Pusher Ram Gearbox BP-137	Hydraulic Oil	1,500
BP-138	East Pusher Hydraulic Tank BP-138	Hydraulic Oil	1,500
BP-139	West Pusher Hydraulic Tank BP-139	Hydraulic Oil	1,500
BP-140	East Garage Car Hydraulic Tank BP-140	Hydraulic Oil	1,500
BP-141	West Garage Car Hydraulic Tank BP-141	Hydraulic Oil	1,500
BP-142	East Door Marine Hydraulic Tank BP-142	Hydraulic Oil	1,500
BP-143	West Door Marine Hydraulic Tank BP-143	Hydraulic Oil	1,500
BP-144	East Pusher Ram Gearbox BP-144	Hydraulic Oil	1,500
BP-145	West Pusher Ram Gearbox BP-145	Hydraulic Oil	1,500
BP-146	East Pusher Hydraulic Tank BP-146	Hydraulic Oil	1,500
BP-147	West Pusher Hydraulic Tank BP-147	Hydraulic Oil	1,500
BP-148	East Garage Car Hydraulic Tank BP-148	Hydraulic Oil	1,500
BP-149	West Garage Car Hydraulic Tank BP-149	Hydraulic Oil	1,500
BP-150	East Door Marine Hydraulic Tank BP-150	Hydraulic Oil	1,500
BP-151	West Door Marine Hydraulic Tank BP-151	Hydraulic Oil	1,500
BP-152	East Pusher Ram Gearbox BP-152	Hydraulic Oil	1,500
BP-153	West Pusher Ram Gearbox BP-153	Hydraulic Oil	1,500
BP-154	East Pusher Hydraulic Tank BP-154	Hydraulic Oil	1,500
BP-155	West Pusher Hydraulic Tank BP-155	Hydraulic Oil	1,500
BP-156	East Garage Car Hydraulic Tank BP-156	Hydraulic Oil	1,500
BP-157	West Garage Car Hydraulic Tank BP-157	Hydraulic Oil	1,500
BP-158	East Door Marine Hydraulic Tank BP-158	Hydraulic Oil	1,500
BP-159	West Door Marine Hydraulic Tank BP-159	Hydraulic Oil	1,500
BP-160	East Pusher Ram Gearbox BP-160	Hydraulic Oil	1,500
BP-161	West Pusher Ram Gearbox BP-161	Hydraulic Oil	1,500
BP-162	East Pusher Hydraulic Tank BP-162	Hydraulic Oil	1,500
BP-163	West Pusher Hydraulic Tank BP-163	Hydraulic Oil	1,500
BP-164	East Garage Car Hydraulic Tank BP-164	Hydraulic Oil	1,500
BP-165	West Garage Car Hydraulic Tank BP-165	Hydraulic Oil	1,500
BP-166	East Door Marine Hydraulic Tank BP-166	Hydraulic Oil	1,500
BP-167	West Door Marine Hydraulic Tank BP-167	Hydraulic Oil	1,500
BP-168	East Pusher Ram Gearbox BP-168	Hydraulic Oil	1,500
BP-169	West Pusher Ram Gearbox BP-169	Hydraulic Oil	1,500
BP-170	East Pusher Hydraulic Tank BP-170	Hydraulic Oil	1,500
BP-171	West Pusher Hydraulic Tank BP-171	Hydraulic Oil	1,500
BP-172	East Garage Car Hydraulic Tank BP-172	Hydraulic Oil	1,500
BP-173	West Garage Car Hydraulic Tank BP-173	Hydraulic Oil	1,500
BP-174	East Door Marine Hydraulic Tank BP-174	Hydraulic Oil	1,500
BP-175	West Door Marine Hydraulic Tank BP-175	Hydraulic Oil	1,500
BP-176	East Pusher Ram Gearbox BP-176	Hydraulic Oil	1,500
BP-177	West Pusher Ram Gearbox BP-177	Hydraulic Oil	1,500
BP-178	East Pusher Hydraulic Tank BP-178	Hydraulic Oil	1,500
BP-179	West Pusher Hydraulic Tank BP-179	Hydraulic Oil	1,500
BP-180	East Garage Car Hydraulic Tank BP-180	Hydraulic Oil	1,500
BP-181	West Garage Car Hydraulic Tank BP-181	Hydraulic Oil	1,500
BP-182	East Door Marine Hydraulic Tank BP-182	Hydraulic Oil	1,500
BP-183	West Door Marine Hydraulic Tank BP-183	Hydraulic Oil	1,500
BP-184	East Pusher Ram Gearbox BP-184	Hydraulic Oil	1,500
BP-185	West Pusher Ram Gearbox BP-185	Hydraulic Oil	1,500
BP-186	East Pusher Hydraulic Tank BP-186	Hydraulic Oil	1,500
BP-187	West Pusher Hydraulic Tank BP-187	Hydraulic Oil	1,500
BP-188	East Garage Car Hydraulic Tank BP-188	Hydraulic Oil	1,500
BP-189	West Garage Car Hydraulic Tank BP-189	Hydraulic Oil	1,500
BP-190	East Door Marine Hydraulic Tank BP-190	Hydraulic Oil	1,500
BP-191	West Door Marine Hydraulic Tank BP-191	Hydraulic Oil	1,500
BP-192	East Pusher Ram Gearbox BP-192	Hydraulic Oil	1,500
BP-193	West Pusher Ram Gearbox BP-193	Hydraulic Oil	1,500
BP-194	East Pusher Hydraulic Tank BP-194	Hydraulic Oil	1,500
BP-195	West Pusher Hydraulic Tank BP-195	Hydraulic Oil	1,500
BP-196	East Garage Car Hydraulic Tank BP-196	Hydraulic Oil	1,500
BP-197	West Garage Car Hydraulic Tank BP-197	Hydraulic Oil	1,500
BP-198	East Door Marine Hydraulic Tank BP-198	Hydraulic Oil	1,500
BP-199	West Door Marine Hydraulic Tank BP-199	Hydraulic Oil	1,500
BP-200	East Pusher Ram Gearbox BP-200	Hydraulic Oil	1,500



EER COBALT BATTERY, LLC
1400 ZIG LANE ROAD
DETROIT, MICHIGAN

MATERIAL STORAGE MAP

ARCADIS

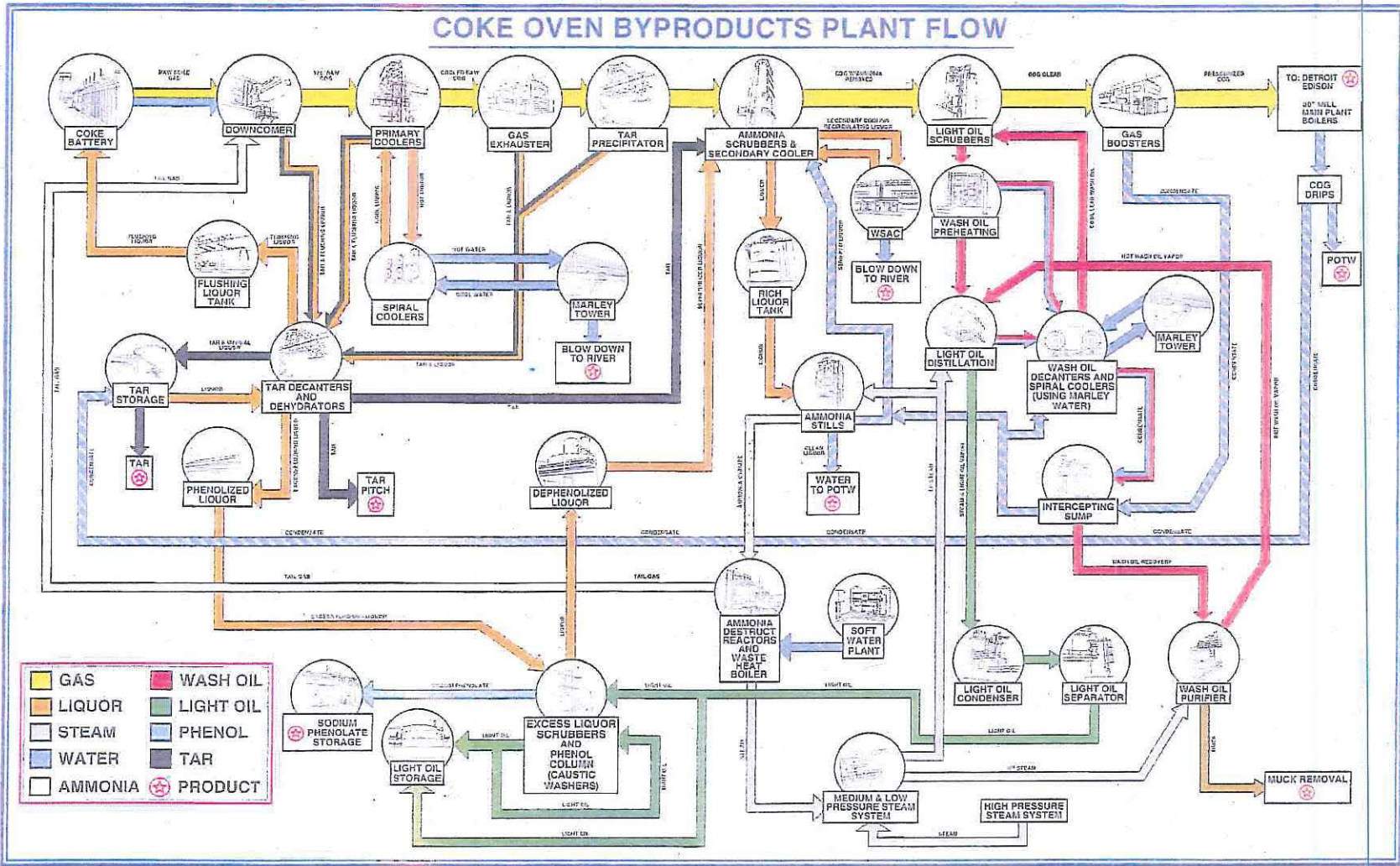
FIGURE 5

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

ATTACHMENT C: Process Flow Diagrams

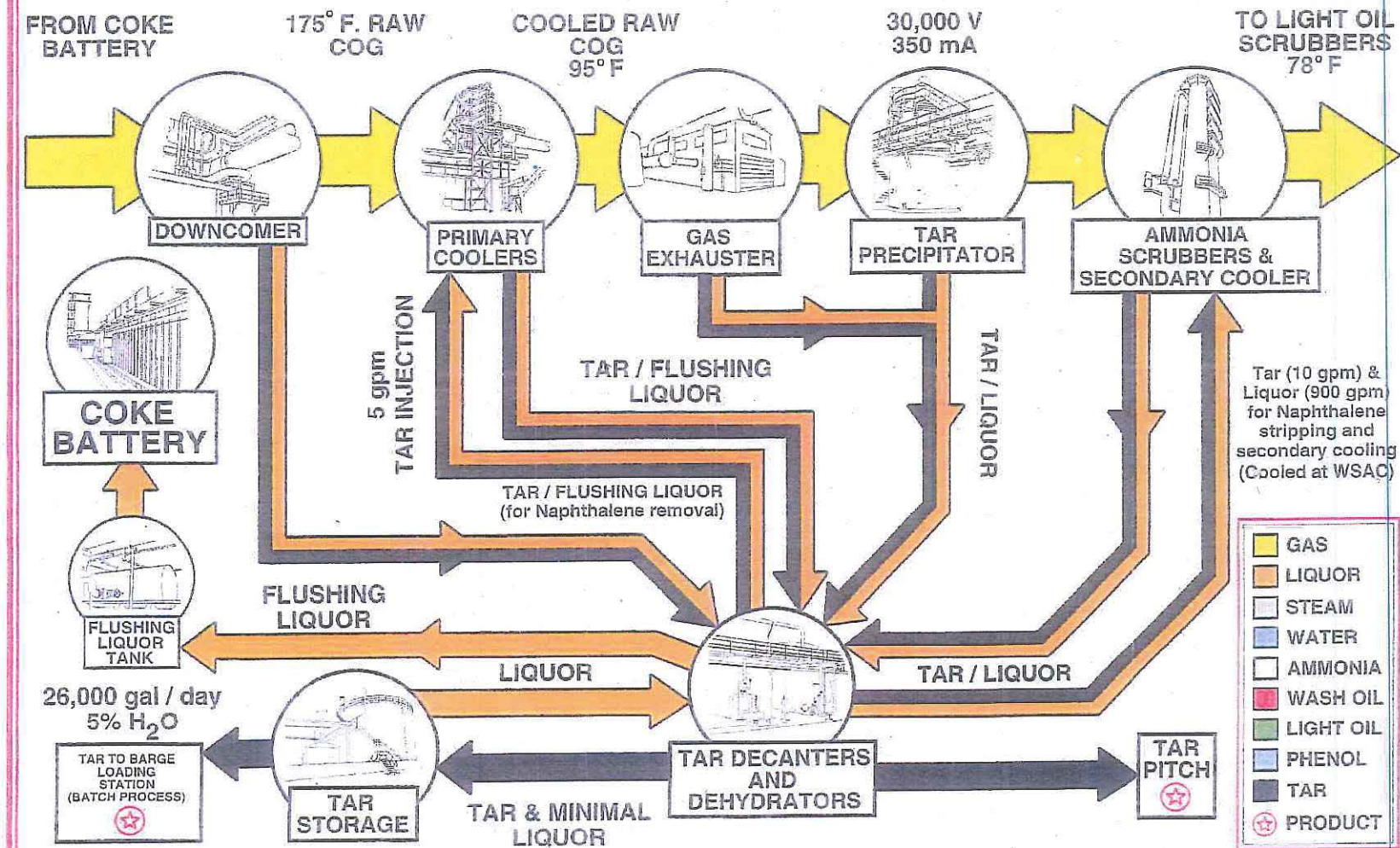
COKE OVEN BYPRODUCTS PLANT FLOW

Color	Material
Yellow	GAS
Orange	LIQUOR
Green	LIGHT OIL
White	STEAM
Blue	WATER
Dark Blue	TAR
Black	AMMONIA
Star in Circle	PRODUCT

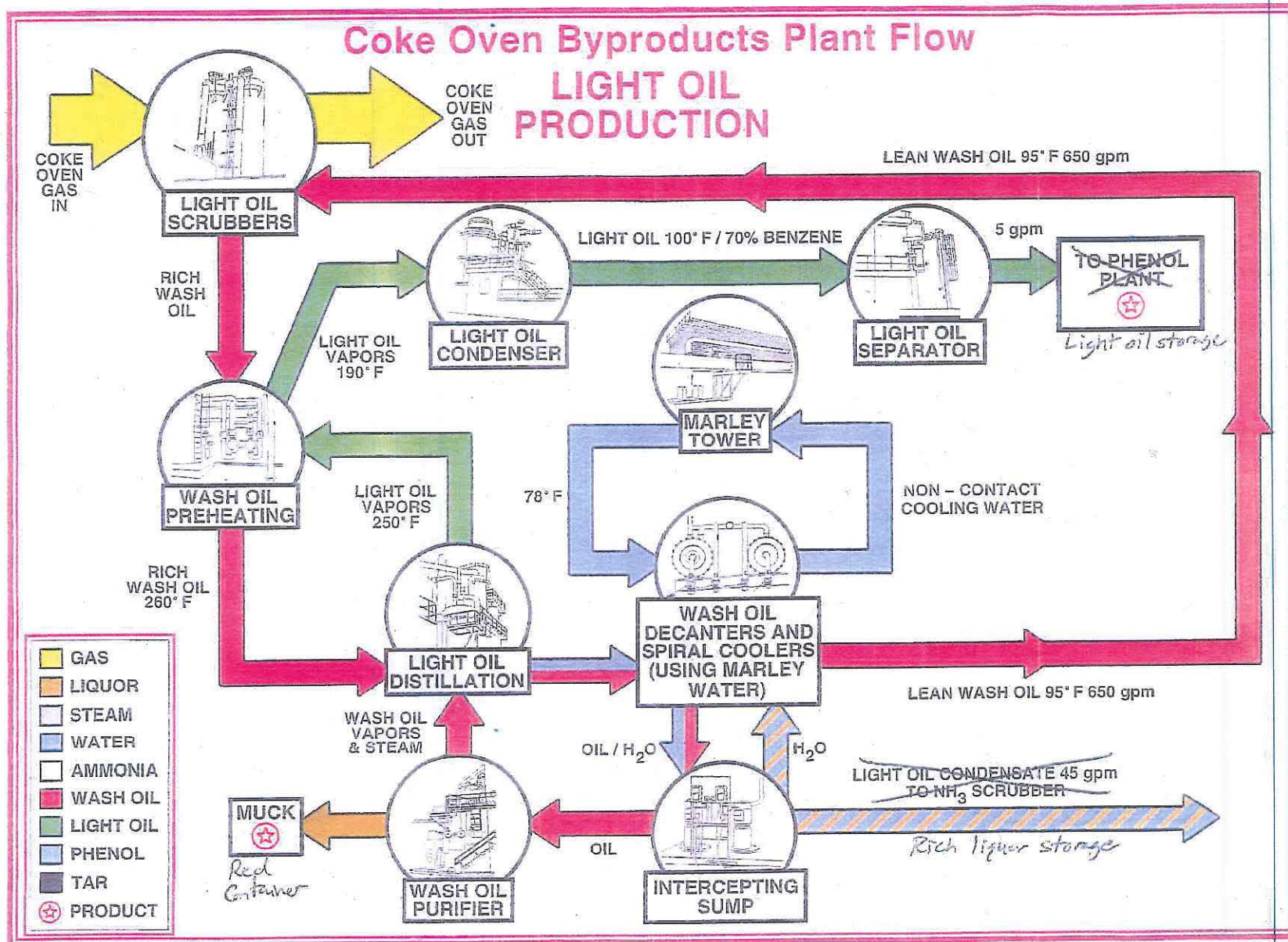


Coke Oven Byproducts Plant Flow

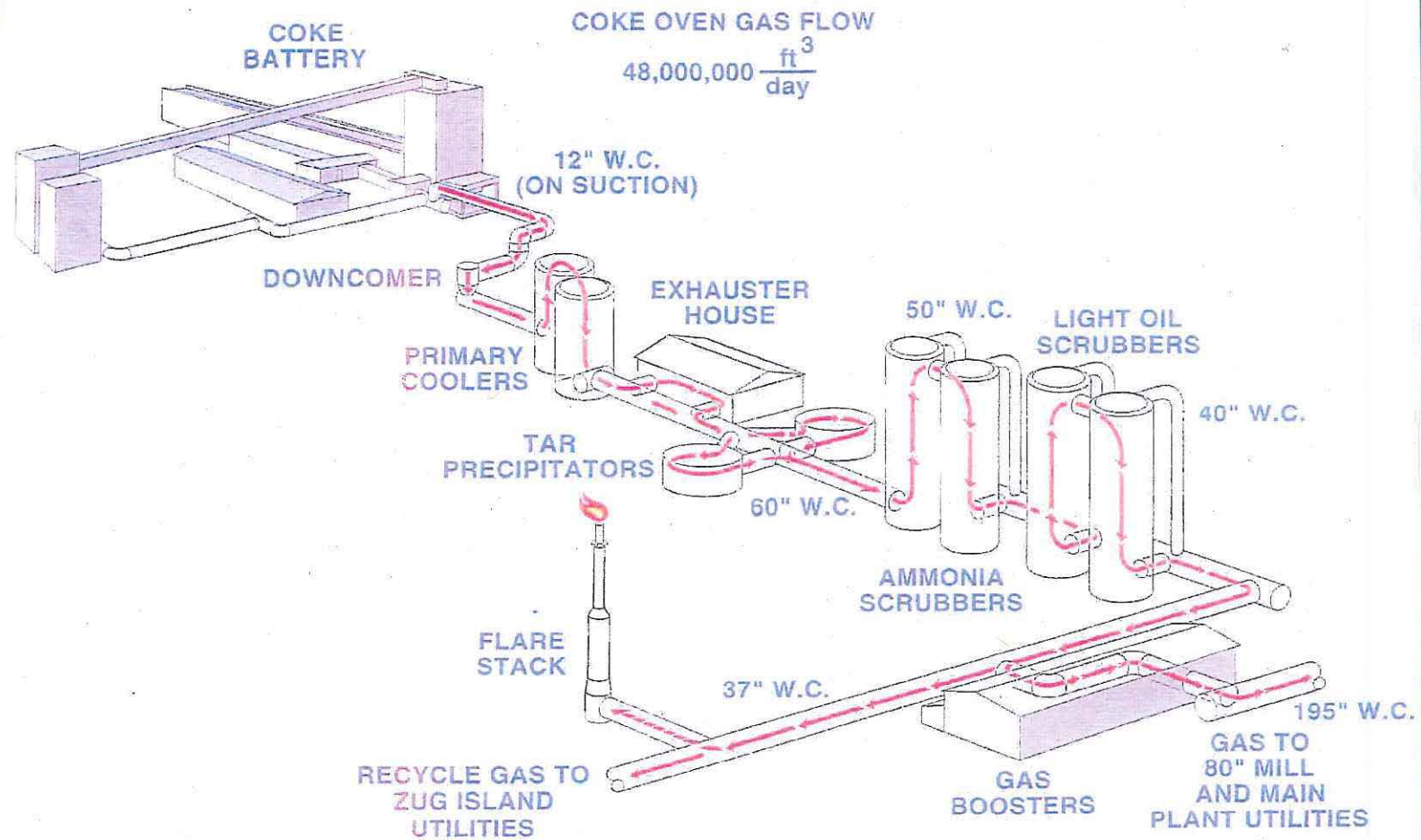
TAR / NAPHTHALENE REMOVAL



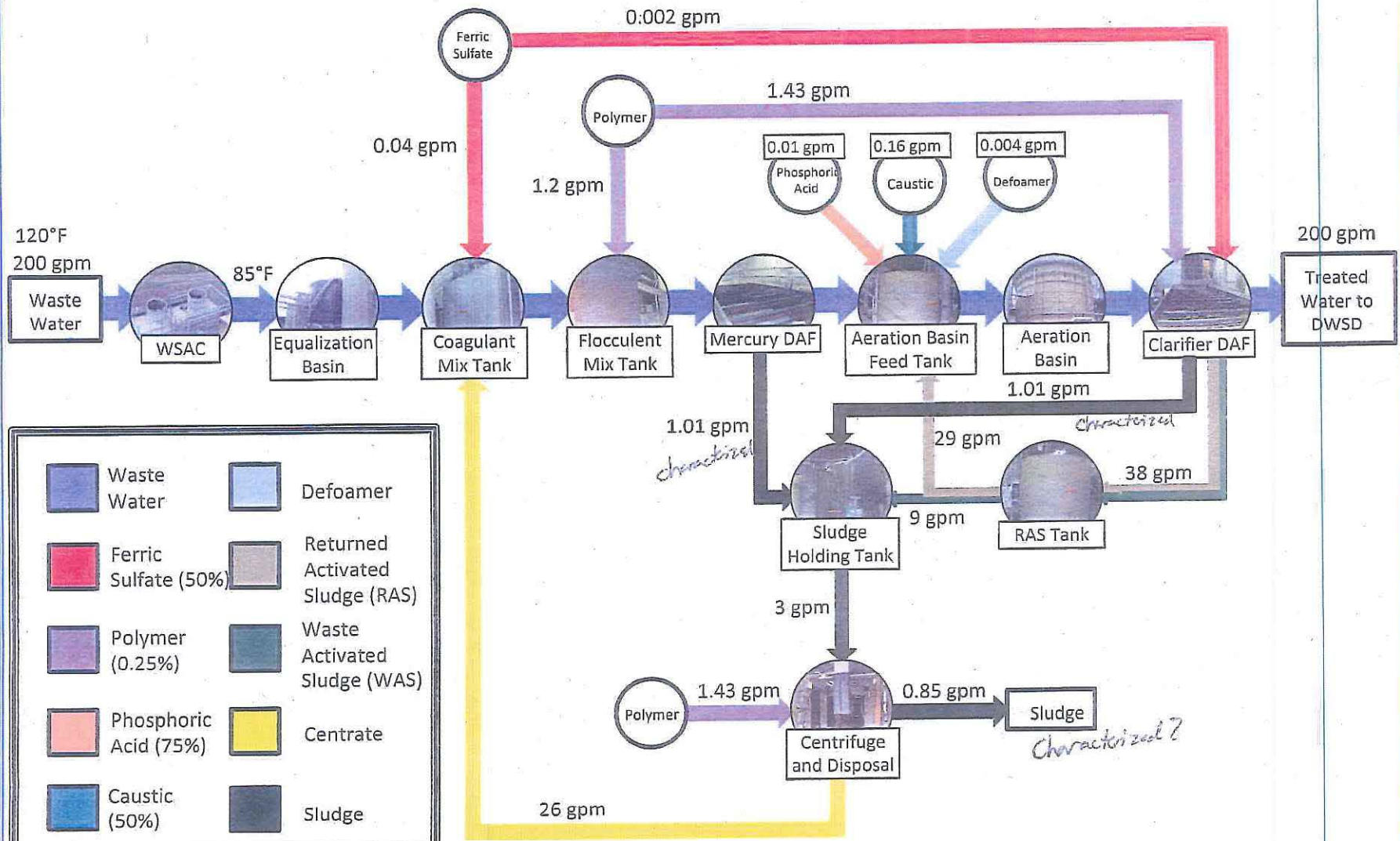
B2c



COKE OVEN BYPRODUCTS PRIMARY GAS FLOW



Waste Water Treatment Process



EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

ATTACHMENT D: Manifest Tracking Logs/Sample Manifest

272005

RECEIVED FEB 24 2015

Please print or type. (Form designed for use on ellipse (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number MIK498855683	2. Page 1 of 1	3. Emergency Response Phone 800-424-9300	4. Manifest Tracking Number 011657885 JJK			
5. Generator's Name and Mailing Address CES Coker Battery LLC PO Box 18309 River Rouge, MI 48218		Generator's Site Address (if different than mailing address) CES Coker Battery LLC 1400 Zug Island Rd Detroit, MI 48209						
Generator's Phone: 313.297.4182								
6. Transporter 1 Company Name Aguilar Hydrochem						U.S. EPA ID Number TX000022764		
7. Transporter 2 Company Name						U.S. EPA ID Number		
8. Designated Facility Name and Site Address Pitts Incineration Services Inc 36790 Giles Rd Grafton OH 44044						U.S. EPA ID Number OH0048415665		
Facility's Phone: 440.745.5800								
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. NA3077, Hazardous waste, solid, nos. (highly flammable, benzene), 9, PG II, RQ	19	DM	14,250	P	DA8	K087	K141
	2.					K142	K143	K144
	3.							
	4.							
14. Special Handling Instructions and Additional Information: WPS# 69756 ER6 #171 SG 1.00								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name Brenna Harden		Signature Brenna Harden		Month 2		Day 13		Year 15
16. International Shipments Transporter signature (for exports only):		<input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:				
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Chandler Bator		Signature Chandler Bator		Month 2		Day 13		Year 15
Transporter 2 Printed/Typed Name		Signature		Month		Day		Year
18. Discrepancy								
18a. Discrepancy Indication Space		<input type="checkbox"/> Quantity <input type="checkbox"/> Type		<input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection		<input type="checkbox"/> Full Rejection		
		Manifest Reference Number:						
18b. Alternate Facility (or Generator)		U.S. EPA ID Number						
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)		Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H040		2.		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name JAMES E. SPARROW		Signature James E. Sparrow		Month 2		Day 13		Year 15

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LIW, HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
0011657879JJK	1/5/2015	Aquilex HydroChem	EQ Detroit, Inc	2/9/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2500			1 TT	
0011657880JJK	1/5/2015	Aquilex HydroChem	EQ Detroit, Inc	2/9/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2500			1 TT	
0011657881JJK	1/6/2015	Aquilex HydroChem	EQ Detroit, Inc	2/10/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2400			1 TT	
0011657882JJK	1/6/2015	Aquilex HydroChem	EQ Detroit, Inc	2/10/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2400			1 TT	
0011657883JJK	1/7/2015	Aquilex HydroChem	EQ Detroit, Inc	2/11/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2400			1 TT	
0011657884JJK	1/7/2015	Aquilex HydroChem	EQ Detroit, Inc	2/11/2015	1/13/2015	2/4/2015	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2400			1 TT	
0011657885JJK	2/13/2015	Aquilex HydroChem	EQ Detroit, Inc	3/20/2015	2/24/2015	3/2/2015	5/2/2014	NA3077, Hazardous waste, solid, nos, (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		14250		19 DM	
0011657886JJK	2/20/2015	Aquilex HydroChem	EQ Detroit, Inc	3/27/2015	3/3/2015	3/2/2015	5/2/2014	NA3077, Hazardous waste, solid, nos, (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10000		10 DM	
0011657887JJK	3/9/2015	Aquilex HydroChem	EQ Detroit, Inc	4/13/2015	27		NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #C158012DET (Bulk Density Tank Removal) - 029L	3000			1 CM	
0011657888JJK	3/10/2015	Aquilex HydroChem	Usher Oil Service	4/14/2015	3/17/2015		NA	Used oil, non-regulated material	LIW	Approval # 051314-O - 021L	1,220 2,660			1,4 2,2	1, DM 2, TP
0011657875JJK	3/12/2015	Aquilex HydroChem	EQ Detroit, Inc	4/16/2015	30		1. 8/20/2014 2. NA 3. NA	1. NA3077, Hazardous Waste, Solid, NOS (benzene), 9, PG III, RQ 2. Non Hazardous, Non Regulated Material - W. Grease 3. Non Hazardous, Non Regulated Material - RCRA Empty Drums	1. HZ 2. OTHER 3. OTHER	1. Coal Tar & Debris - F143028DET 2. W. Grease - G088034DET 3. RCRA Empty Drums - F107223DET		1,11000 2,900 3,525		1,22 2,8 3,15	1, DM 2, DM 3, DM
4700845218 BOL	3/13/2015	Aquilex HydroChem	EQ Transfer and Processing	4/17/2015	31		1. NA 2. NA 3. NA 4. NA 5. NA 6. NA	1. UN2794, Batteries, Wet, Filled with Acid, 8, PG III, Universal Waste Batteries, Lead Acid 2. UN2795, Batteries, Nickel-Cadmium, 8, PG III, Universal Waste 3. UN3090, Lithium Battery, 9, PG II, Universal Waste Batteries, Lithium 4. Batteries, Dry, Sealed, Non-DOT Regulated 5. Universal Waste Electric Lamps (4' Fluorescent) 6. Universal Waste Electric Lamps (HID)	1. OTHER 2. OTHER 3. OTHER 4. OTHER 5. OTHER 6. OTHER	1. ERG #154 Approval UNIV031015QK 2. ERG #154 Approval UNIV031015QK 3. ERG #172 Approval UNIV03102015QJ 4. NA Approval UNIV031015QK 5. NA Approval UNIV031015QA 6. NA Approval UNIV031015QA		1,15 2,25 3,15 4,100 5,300 6,75		1,2 2,8 3,1 4,3 5,6 6,1	1, DF 2, DF 3, DF 4, DF 5, DF 6, DF
0011657873JJK	3/13/2015	Aquilex HydroChem	EQ Detroit, Inc	4/17/2015	31		1. NA 2. NA 3. NA 4. 8/20/2014	1. Non Hazardous, Non Regulated Material 2. UN1996, compressed ga. nos. 2.2 ERG126 3. Non Hazardous, Non Regulated Material 4. UN3077, Hazardous Waste, Solid, NOS (benzene), 9, PG III, RQ	1. OTHER 2. OTHER 3. OTHER 4. HZ	1. Used Oily Rags (H144001DET-OTS) 2. Cal Gas - Zero Grade (C158053DET) 3. RCRA Empty Drums (F107223DET) 4. Coal Tar & Debris (F143028DET)		1,100 2,5 3,50 4,500		1,1 2,1 3,10 4,1	1, DM 2, CF 3, DM 4, DM

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LW, HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
0011657874JJK	3/13/2015	Aquilex HydroChem	EQ Detroit, Inc	4/17/2015	31		1. 9/30/2014 2. 4/1/2014 3. 8/20/2014 4. NA	1. RQ, UN1950, Waste Aerosols. Flammable, 2.2 2. NA3082, hazardous waste, nos (benzene, naphthalene), 9, PG III, RQ 3. UN3082, Hazardous Waste, liquid, NOS, 9, PG III, RQ 4. Non Hazardous, Non Regulated Material	1. HZ 2. HZ 3. HZ 4. OTHER	1. Aerosols (C158052DET) 2. Wash Oil Muck (A117294DET) Used Oily Rags (H144001DET-OTS) 3. Preheater Sludge (C158094DET) 4. W. Grease - G088034DET		1. 50 2. 1200 3. 1500 4. 200		1. 1 2. 2 3. 2 4. 2	1. DM 2. DM 3. DM 4. DM
014048309JJK	3/13/2015	Ross Transportation Services, Inc	Ross Incineration Services, Inc	4/17/2015	31		9/12/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10880		1	CM
012194661JJK	3/16/2015	Aquilex HydroChem	Ross Incineration Services, Inc	4/20/2015	34		2/23/2015	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		19600		1	CM

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LIW,HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
001657841JJK	2/6/2014	IISG Central Region, LLC	EQ Detroit, Inc	3/13/2014	2/12/2014	3/3/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	2500				TT
004061237SKS	2/20/2014	Safety-Kleen Systems, Inc.	Safety-Kleen Systems, Inc.	3/27/2014	2/28/2014	3/3/2014	NA	Used cleaning compounds (Petroleum naphtha)	LIW	Not USDOT or USEPA Regulated (150 Solvent) - 007L	75				DM
012194655JJK	3/7/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	4/11/2014	3/14/2014	4/1/2014	7/2/2013	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K144, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		16940		1	CM
012194658JJK	3/13/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	4/17/2014	4/3/2014	4/7/2014	7/2/2013	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10580		1	CM
0011657635JJK	3/27/2014	Cleaning Contractors, Inc	K&D Industrial Service	5/1/2014	4/4/2014	4/1/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge from #2LS) - 029L	6000				1 TT
0011657646JJK	3/27/2014	Cleaning Contractors, Inc	EQ Detroit, Inc	5/1/2014	4/10/2014	4/1/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge from #2LS) - 029L	1650				1 TT
007509241FLE	3/31/2014	ERG Environmental Services	EQ Detroit, Inc	5/5/2014	4/29/2014	4/1/2014	3/31/2014	RQ, UN1950, Waste Aerosols, Flammable, 2.1, (EPA: D007, D001, D035), (contains: Chromium, MEK)	HZ	Approval # JM057407 (Aerosols)		150		1	DM
SHIPPER 405281	3/31/2014	ERG Environmental Services	ERG Environmental Services	5/5/2014	NA	NA	1. NA 2. NA 3. NA 4. NA	1. UN3090, Lithium Battery, 9, PG II, Universal Waste Batteries, Lithium 2. UN2794, Batteries, Wet, Filled with Acid, 8, PG II, Universal Waste Batteries, Lead Acid 3. Batteries, Dry Sealed, Non-DOT Regulated (9 Volt or Less) Universal Waste Batteries 4. Universal Waste Electric Lamps (HID, 4' Fluorescent, U-Shaped)	1. OTHER 2. OTHER 3. OTHER 4. OTHER		1. 20 2. 350 3. 140 4. 450		1. 1 2. 1 3. 2 4. 1 / 5	1. DF 2. DM 3. DF 4. DM / CF	
011657636JJK	4/11/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	5/16/2014	4/29/2014	5/6/2014	7/2/2013	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K144, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		6000		10	DM
011657637JJK	4/11/2014	IISG Central Region, LLC	EQ Detroit, Inc	5/16/2014	5/6/2014	5/6/2014	1. 12/2/2013 2. 4/1/2014 4. NA	1. UN1759, corrosive solid, nos. 8, PG II, ERG 154 2. NA3077, hazardous waste, liquid, nos (benzene), 9, PGIII, RO 4. Non-Hazardous, Non-Regulated Material	1. HZ 2. HZ 4. OTHER	1. Tail Gas Solids - K137238DET 2. Wash Oil Muck - A117294DET 4. Waste Ammonia Destruct Debris - G086074DET	1. 600 2. 3000 4. 5400		1. 1 2. 5 4. 8	1. DM 2. DM 4. DM	
011657638JJK	4/11/2014	IISG Central Region, LLC	EQ Detroit, Inc	5/16/2014	4/29/2014	5/6/2014	1. NA 2. NA	1. Non-Hazardous, Non-Regulated Material - RCRA Empty Drums 2. Non-Hazardous, Non-Regulated Material	1. OTHER 2. OTHER	1. RCRA Empty Drums / Totes - F107223DET 2. Used Oil - D147182DET - 021L	1. 500 2. 1500		1. 20 2. 5	1. DM 2. DM	
0011657644JJK	4/14/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	5/19/2014	5/1/2014	5/6/2014	7/2/2013	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, Coal Tar Sludge		11980		1	CM
0011657639JJK	4/23/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	5/28/2014	5/1/2014	5/6/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		25126		1	CM
011657640JJK	5/2/2014	Cleaning Contractors, Inc	EQ Detroit, Inc	6/6/2014	5/12/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000				1 TT
011658166JJK	5/5/2014	Cleaning Contractors, Inc	EQ Detroit, Inc	6/9/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000				1 TT

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LIW, HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
011688166JJK	5/5/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/9/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1 TT	
011688170JJK	5/6/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/10/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1 TT	
011688171JJK	5/6/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/10/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1 TT	
011688167JJK	5/7/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/11/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1 TT	
011688172JJK	5/7/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/11/2014	5/13/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1 TT	
011404795JJK	5/8/2014	Cleaning Contractors, Inc.	EQ Detroit, Inc.	6/12/2014	5/16/2014	6/5/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	1900			1 TT	
012194650JJK	5/13/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	6/17/2014	5/28/2014	6/5/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10840		1 CM	
011688173JJK	5/14/2014	IISG Central Region, LLC	Usher Oil Service	6/18/2014	5/23/2014	6/5/2014	NA	Used oil, non-regulated material	LIW	Approval # 051314-O - 021L	1500			1 TT	
011688174JJK	6/5/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	7/10/2014	6/17/2014	7/7/2014	5/2/2014	NA3077, Hazardous waste, solid nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		4800		12 DM	
011404796JJK	6/9/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	7/14/2014	6/16/2014	7/7/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		63280		1 CM	
004294429SKS	6/9/2014	Safety-Kleen Systems, Inc.	Safety-Kleen Systems, Inc.	7/14/2014	6/18/2014	7/7/2014	NA	Used Cleaning Compounds (Petroleum naphtha)	LIW	Not USDOT or USEPA Regulated (150 Solvent) - 007L	75			3 DM	
011404797JJK	6/16/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	7/21/2014	6/24/2014	7/7/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		15000		1 CM	
011404798JJK	6/19/2014	IISG Central Region, LLC	Usher Oil Service	7/24/2014	06/27/2014	7/7/2014	NA	Used oil, non-regulated material	LIW	Approval # 051314-O - 021L	165			3 DM	
011404799JJK	6/19/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	7/24/2014	7/21/2014	7/7/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		6300		9 DM	
011404800JJK	6/23/2014	IISG Central Region, LLC	Ross Incineration Services, Inc.	7/28/2014	7/21/2014	7/7/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		25000		1 CM	
011688175JJK	6/23/2014	IISG Central Region, LLC	EQ Detroit, Inc.	7/29/2014	07/07/2014	7/7/2014	1. 4/1/2014 2. NA 3. NA 4. NA	1. NA3077, hazardous waste, liquid, nos (benzene), 9, PGIII, RQ 2. Non-Hazardous, Non-Regulated Material - RCRA Empty Drums 3. Non-Hazardous, Non-Regulated Material - W. Grease 4. NA1993, waste, flammable liquids, nos, 3, PG III	1. HZ 2. OTHER 3. OTHER 4. HZ	1. Wash Oil Muck - A117294DET 2. RCRA Empty Drums - F107223DET 3. W. Grease - G088034DET 4. Diesel and Gasoline - E127232DET	4, 110	1, 1500 2, 330 3, 400	1, 3 2, 11 3, 4 4, 2	1, DM 2, DM 3, DM 4, DM	

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LIW,HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
SHIPPER 405959	6/30/2014	ERG Environmental Services	ERG Environmental Services	8/4/2014	NA	NA	1. NA 2. NA 3. NA 4. NA 5. NA	1. UN3090, Lithium Battery, 9, PG II, Universal Waste Batteries, Lithium 2. UN2794, Batteries, Wet, Filled with Acid, 8, PG II, Universal Waste Batteries, Lead Acid 3. Batteries, Dry Sealed, nos (Greater than 9 Volt) Universal Waste Batteries) 4. Batteries, Dry Sealed, nos (9 Volt or Less) Universal Waste Batteries) 5. Universal Waste Electric Lamps (HID, 4' Fluorescent)	1. OTHER 2. OTHER 3. OTHER 4. OTHER 5. OTHER			1.5 2.125 3.60 4.50 5.80 / 200		1.1 2.1 3.2 4.2 5.1 / 4	1. DF 2. DM 3. DF 4. DF 5. DM / CF
SHIPPER 7WM063014-B	6/30/2014	ERG Environmental Services	ERG Environmental Services	8/4/2014	NA	NA	1. NA 2. NA	1. UN1978, Propane, 2.1 Compressed Gas (propane, butane) 2. UN1956, Compressed gas, nos. (Nitrogen, Oxygen), 2.2	1. OTHER 2. OTHER			1.15 2.90		1.1 2.3	1. DF 2. DF
007622155FLE	6/30/2014	ERG Environmental Services	EQ Detroit, Inc	8/4/2014	7/6/2014	7/7/2014	6/30/2014	RQ, UN1950, Waste Aerosols, Flammable, 2.1, (EPA: D007, D001, D035), (contains: Chromium, MEK)	HZ	Approval # JM057407 (Aerosols)		60		1	DM
011688176JJK	7/11/2014	Aquilex HydroChem	Usher Oil Service	8/15/2014	7/21/2014	8/4/2014	NA	Used oil, non-regulated material	LIW	Approval# 051314-O - 021L	1200			1	TT
011688212JJK	8/5/2014	K & D Industrial Services	EQ Detroit, Inc	9/9/2014	9/3/2014	9/3/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	3000			1	TT
011688213JJK	8/5/2014	K & D Industrial Services	EQ Detroit, Inc	9/9/2014	9/3/2014	9/3/2014	NA	Non-Hazardous, Non-Regulated Liquid	LIW	Approval #L088095DET (WWTP Sludge) - 029L	6000			1	TT
011688214JJK	8/7/2014	Aquilex HydroChem	Ross Incineration Services, Inc.	9/11/2014	8/18/2014	9/3/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00	1100			20	DM
011688216JJK	8/20/2014	Aquilex HydroChem	EQ Detroit, Inc	9/24/2014	9/3/2014	9/3/2014	1. 8/20/2014 2. NA 3. NA 4. NA	1. NA3077, Hazardous Waste, Solid, NOS (naphthalene benzene), 9, PG III, RQ (K141, K142, K143, K144, K087) 2. Non Hazardous, Non Regulated Material - RCRA Empty Drums 3. Non Hazardous: Non Regulated Material - W. Ammonia Destruct Debris 4. Non Hazardous, Non Regulated Material - W. Grease	1. HZ 2. OTHER 3. OTHER 4. OTHER	1. Coal Tar & Debris - F143028DET 2. RCRA Empty Drums - F107223DET 3. W. Ammonia Destruct Debris - G088074DET 4. W. Grease - G088034DET	1,3750 2,270 3,3200 4,600		1.5 2.9 3.4 4.6	1. DM 2. DM 3. DM 4. DM	
011688217JJK	8/20/2014	Aquilex HydroChem	EQ Detroit, Inc	9/24/2014	9/3/2014	9/3/2014	1. NA 2. 8/20/2014 3. 4/1/2014	1. Non Hazardous, Non Regulated Material 2. UN1993, Waste Flammable Liquids, n.o.s., 3, PGII, ERG #128 3. NA3082, Hazardous Waste, Liquid, nos (benzene), 9, PGIII, RQ	1. OTHER 2. HZ 3. HZ	1. Used Oily Rags - H144001DET-OTS 2. Coke Oven Gas Boiler Liquid - H143058DET 3. Wash Oil Muck A117294DET	1,1100 2,1000 3,1800		1.2 2.2 3.3	1. DM 2. DM 3. DM	
011688218JJK	8/21/2014	Aquilex HydroChem	Usher Oil Service	9/25/2014	9/3/2014	9/3/2014	NA	Used oil, non-regulated material	LIW	Approval #051314-O - 021L	220			4	DM
011688219JJK	8/23/2014	Aquilex HydroChem	Usher Oil Service	9/27/2014	9/3/2014	9/3/2014	NA	Used oil, non-regulated material	LIW	Approval #051314-O - 021L	1000			1	TT
011688215JJK	8/25/2014	Aquilex HydroChem	Ross Incineration Services, Inc.	9/29/2014	9/3/2014	9/3/2014	5/2/2014	NA3077, Hazardous waste, liquid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10000		1	CM

MANIFEST NUMBER	DATE SHIPPED OFF SITE	TRANSPORTER NAME	DISPOSAL FACILITY	DATE TSDF COPY DUE	(Days Left) or DATE TSDF COPY RECEIVED	DATE COPY TO MDEQ	LDR Submitted	WASTE NAME	Type of Waste (LIW,HZ, TSCA OTHER)	Comments	Gallons	Pounds	Kg	Quantity	Container
013346247JJK	9/11/2014	Aquilex HydroChem	Ross Incineration Services, Inc.	10/16/2014	10/07/2014	10/7/2014	5/2/2014	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		10000		1	CM
011666220JJK	9/12/2014	Aquilex HydroChem	Ross Incineration Services, Inc.	10/17/2014	9/16/2014	10/7/2014	9/12/2014	UN1993, Waste Flammable liquid, nos. (naphthalene, benzene), 3, PG II, RQ (D001, D018, K142, K143)	HZ	WPS# 35171		20000		1	CM
SHIPPER 406238	9/30/2014	ERG Environmental Services	ERG Environmental Services	11/4/2014	NA	NA	1. NA 2. NA 3. NA 4. NA 5. NA	1. UN3090, Lithium Battery, 9, PG II, Universal Waste Batteries, Lithium 2. UN2794, Batteries, Wet, Filled with Acid, 8, PG III, Universal Waste Batteries, Lead Acid 3. Batteries, Dry, Sealed, Non-DOT Regulated (9 Volt or Less), Universal Waste Batteries 4. Non-PCB Ballast, Universal Waste 5. Universal Waste Electric Lamps (HID, Mixed, 4" Fluorescent)	1. OTHER 2. OTHER 3. OTHER 4. OTHER 5. OTHER	1. ERG #138 2. ERG #154 3. NA 4. NA 5. NA		1.3 2.20 3.40 4.10 5.150	1.1 2.1 3.1 4.1 5.1/3	1. DF 2. DF 3. DF 4. DF 5. CF / DF	
SHIPPER 7WM092914-F	9/30/2014	ERG Environmental Services	ERG Environmental Services	11/4/2014	NA	NA	NA	UN1956, Compressed gas, nos. (Nitrogen, Oxygen), 2.2	OTHER	Approval # G053014-01		10		1	DF
007623692FLE	9/30/2014	ERG Environmental Services	EQ Detroit, Inc.	11/4/2014	10/21/2014	10/7/2014	9/30/2014	RQ, UN1950, Waste Aerosols, Flammable, 2.1, (EPA: D007, D001, D035), (contains: Chromium, MEK)	HZ	Approval # JM057407 (Aerosols)		40		3	DF
011688221JJK	10/21/2014	Aquilex HydroChem	EQ Detroit, Inc.	11/25/2014	11/11/2014	11/3/2014	1. NA 2. NA 3. 4/1/2014 4. 12/2/2013	1. Non hazardous, Non Regulated Material 2. Non hazardous, Non Regulated Material 3. NA3082, Hazardous Waste, nos (benzene, naphthalene), 9, PGII, RQ 4. UN1759, corrosive, solids, nos. 8, PG II	1. OTHER 2. OTHER 3. HZ 4. HZ	1. W, Grease - G068034DET 2. Used Oily Rags - H144001DET-OTS 3. Wash Oil Muck - A117294DET 4. Tail Gas Solids - K137238DET		1,200 2,550 3,1800 4,4200	1.2 2.1 3.3 4.8	1. DM 2. DM 3. DM 4. DM	
011686222JJK	10/21/2014	Aquilex HydroChem	EQ Detroit, Inc.	11/25/2014	11/11/2014	11/3/2014	1. 8/20/2014 2. NA	1. UN1993, waste flammable, liquids, nos. 3, PG II, ERG#128 2. RCRA Empty Drums / Totes, nonhazardous	1. HZ 2. OTHER	1. COG Boiler liquid - H143058DET 2. RCRA Empty Drums - F107223DET		1,2000 2,210	1,4 2.7	1. DM 2. DM	
011677223JJK	10/21/2014	Aquilex HydroChem	Usher Oil Service	11/25/2014	10/28/2014	11/3/2014	NA	Used oil, non-regulated material	LIW	Approval #051314-O - 021L		165		3	DM
011657677JJK	10/27/2014	Aquilex HydroChem	Ross Incineration Services, Inc.	12/1/2014	10/31/2014	11/3/2014	5/2/2014	NA3077, Hazardous waste, solid, nos. (naphthalene, benzene), 9, PG III, RQ (K141, K142, K143, K144, K087)	HZ	WPS# 69756, ERG #171 SG 1.00		11700		13	DM
011657678JJK	11/3/2014	Aquilex HydroChem	Usher Oil Service	12/8/2014	11/10/2014	12/2/2014	NA	Used oil, non-regulated material	LIW	Approval #051314-O - 021L		2100		1	TT
004475673SKS	12/11/2014	Safety-Kleen Systems, Inc.	Safety-Kleen Systems, Inc.	1/15/2015	12/17/2014	1/5/2015	NA	Used Cleaning Compounds (Petroleum naphtha)	LIW	Not USDOT or USEPA Regulated (150 Solvent) - 007L		75		3	DM
				NA	NA										

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

ATTACHMENT E: Selected Waste Profiles



Generator Approval Notification

January 31, 2011

Customer: EES COKE BATTERY LLC

Fax: (313) 297-4184

ENVIRONMENTAL MANAGER
DTE ENERGY SERVICES EES COKE
1400 ZUG ISLAND
RIVER ROUGE, MI 48218

This Generator Approval Notification acknowledges the acceptability of waste material(s) into the EQ environmental protection facility identified below and ensures that this facility has the appropriate permit(s) issued by federal and state regulatory agencies to properly transport, treat, and/or dispose of the waste material(s).

EQ FACILITY: EQ Detroit, Inc. (MID980991566)
1923 Frederick, Detroit, MI 48211

Approval Number: A117294DET

Generator EPA ID: MIK498855683

Expires On: 11/10/2011

Waste Common Name: WASH OIL MUCK

Comments:

Primary Waste Code: K143

Secondary Waste Codes: D018, K141, K144

The Approval(s) listed above are based upon characterization information supplied to EQ by the Customer and the generator (if other than the Customer). The Customer is ultimately responsible for the accuracy and completeness of all such information, whether provided by the Customer or the generator. The Customer must notify the EQ Resource Team immediately upon knowledge of any changes to this information. This Approval and all wastes which are transported, delivered, or tendered to EQ under this Approval shall be subject to the attached Standard Terms and Conditions.

The Approval(s) will expire on the date(s) noted. Any new Approvals obtained from EQ on future business will be valid for a period of one (1) year from the date of issuance. Within 60 days of the Approval Expiration Date, you will be notified of the requirements for recertification.

YOUR BUSINESS. OUR SOLUTIONS. A PRODUCTIVE PARTNERSHIP®

Mail or fax to: EQ Detroit, Inc., 1923 Frederick, Detroit, MI 48211, Phone: 1-800-592-5489 Fax: 1-800-592-5329





Environmental

27-Oct-2010

Mark Nederveld
EES Coke Battery LLC.
PO Box 18309
River Rouge, MI 48218

Re: **Wash Oil Muck**

Work Order: **1010445**

Dear Mark,

ALS Environmental received 1 sample on 16-Oct-2010 08:20 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Electronically approved by: Joseph Ribar

Joseph Ribar
Project Manager



Certificate No: IL100452

www.alsglobal.com

ALST SOLUTIONS

Client: EES Coke Battery LLC.
Project: Wash Oil Muck
Work Order: 1010445

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1010445-01	Wash Oil Muck	Telp Extract		10/15/2010 10:00	10/16/2010 08:20	<input type="checkbox"/>



ALS Group USA, Corp

Date: 27-Oct-10

Client: EES Coke Battery LLC.
Project: Wash Oil Muck
Work Order: 1010445

Case Narrative

TCLP Metals - 40 CFR Part 261.24 (b)

Parameter	Maximum Concentration For Toxicity Characteristic (mg/L)
Mercury	0.2
Arsenic	5.0
Barium	100
Cadmium	1.0
Chromium	5.0
Lead	5.0
Selenium	1.0
Silver	5.0

TCLP Semi-Volatiles - 40 CFR Part 261.24 (b)

Parameter	Maximum Concentration For Toxicity Characteristic (µg/L)
1,4-Dichlorobenzene	7,500
2,4-Dinitrotoluene	130
Hexachloro-1,3-butadiene	500
Hexachlorobenzene	130
Hexachloroethane	3,000
Nitrobenzene	2,000
Pyridine	5,000
m-Cresol	200,000
o-Cresol	200,000
p-Cresol	200,000
Pentachlorophenol	100,000
2,4,5-Trichlorophenol	400,000
2,4,6-Trichlorophenol	2,000

TCLP Volatiles - 40 CFR Part 261.24 (b)

Client: EES Coke Battery LLC.
Project: Wash Oil Muck
Work Order: 1010445

Case Narrative

Parameter	Maximum Concentration For Toxicity Characteristic (µg/L)
-----------	---

1,1-Dichloroethene	700
1,2-Dichloroethane	500
2-Butanone	200,000
Benzene	500
Carbon Tetrachloride	500
Chlorobenzene	100,000
Chloroform	6,000
Tetrachloroethene	700
Trichloroethene	500
Vinyl Chloride	200

**ALS Group USA, Corp**

Date: 27-Oct-10

Client: EES Coke Battery LLC.

Project: Wash Oil Muck

Work Order: 1010445

Sample ID: Wash Oil Muck

Lab ID: 1010445-01

Collection Date: 10/15/2010 10:00 AM

Matrix: TCLP EXTRACT

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TCLP MERCURY BY CVAA						
Mercury	ND		SW7470 0.0020	mg/L	1	Prep Date: 10/19/2010 Analyst: CES 10/19/2010 03:32 PM
TCLP METALS ANALYSIS BY ICP-MS						
Arsenic	ND		SW6020A 0.010	mg/L	1	Prep Date: 10/19/2010 Analyst: RH 10/20/2010 05:13 AM
Barium	ND		0.050	mg/L	1	10/20/2010 05:13 AM
Cadmium	ND		0.0020	mg/L	1	10/20/2010 05:13 AM
Chromium	ND		0.020	mg/L	1	10/20/2010 05:13 AM
Lead	ND		0.010	mg/L	1	10/20/2010 05:13 AM
Selenium	ND		0.020	mg/L	1	10/20/2010 05:13 AM
Silver	ND		0.0050	mg/L	1	10/20/2010 05:13 AM
TCLP SEMI-VOLATILE ORGANICS						
1,4-Dichlorobenzene	ND		SW8270 100	µg/L	1	Prep Date: 10/20/2010 Analyst: HL 10/22/2010 02:13 AM
2,4,5-Trichlorophenol	ND		100	µg/L	1	10/22/2010 02:13 AM
2,4,6-Trichlorophenol	ND		100	µg/L	1	10/22/2010 02:13 AM
2,4-Dinitrotoluene	ND		100	µg/L	1	10/22/2010 02:13 AM
Hexachloro-1,3-butadiene	ND		100	µg/L	1	10/22/2010 02:13 AM
Hexachlorobenzene	ND		100	µg/L	1	10/22/2010 02:13 AM
Hexachloroethane	ND		100	µg/L	1	10/22/2010 02:13 AM
m-Cresol	ND		100	µg/L	1	10/22/2010 02:13 AM
Nitrobenzene	ND		100	µg/L	1	10/22/2010 02:13 AM
o-Cresol	ND		100	µg/L	1	10/22/2010 02:13 AM
p-Cresol	ND		100	µg/L	1	10/22/2010 02:13 AM
Pentachlorophenol	ND		400	µg/L	1	10/22/2010 02:13 AM
Pyridine	ND		400	µg/L	1	10/22/2010 02:13 AM
TCLP VOLATILE ORGANICS						
1,1-Dichloroethene	ND		SW8260 20	µg/L	20	Prep Date: 10/18/2010 Analyst: AK 10/26/2010 10:31 AM
1,2-Dichloroethane	ND		20	µg/L	20	10/26/2010 10:31 AM
2-Butanone	ND		200	µg/L	20	10/26/2010 10:31 AM
Benzene	660		20	µg/L	20	10/26/2010 10:31 AM
Carbon tetrachloride	ND		20	µg/L	20	10/26/2010 10:31 AM
Chlorobenzene	ND		20	µg/L	20	10/26/2010 10:31 AM
Chloroform	ND		20	µg/L	20	10/26/2010 10:31 AM
Tetrachloroethene	ND		20	µg/L	20	10/26/2010 10:31 AM
Trichloroethene	ND		20	µg/L	20	10/26/2010 10:31 AM
Vinyl chloride	ND		20	µg/L	20	10/26/2010 10:31 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: EES Coke Battery LLC.
Project: Wash Oil Muck
WorkOrder: 1010445

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<u>Units Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: 27-Oct-10

Client: EES Coke Battery LLC.

QC BATCH REPORT

Work Order: 1010445

Project: Wash Oil Muck

Batch ID: 30066		Instrument ID HG1		Method: SW7470						
MBLK	Sample ID	MBLK-30066-30066			Units: mg/L	Analysis Date: 10/19/2010 03:25 P				
Client ID:	Run ID: HG1_101019A		SeqNo: 1456904		Prep Date: 10/19/2010		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.00020								
LCS	Sample ID	LCS-30066-30066			Units: mg/L	Analysis Date: 10/19/2010 03:27 P				
Client ID:	Run ID: HG1_101019A		SeqNo: 1456906		Prep Date: 10/19/2010		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001873	0.00020	0.002	0	93.6	80-120	0			
LCSD	Sample ID	LCSD-30066-30066			Units: mg/L	Analysis Date: 10/19/2010 03:29 P				
Client ID:	Run ID: HG1_101019A		SeqNo: 1456907		Prep Date: 10/19/2010		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001871	0.00020	0.002	0	93.6	80-120	0.001873	0.107	20	
MS	Sample ID	1010474-01CMS			Units: mg/L	Analysis Date: 10/19/2010 03:45 P				
Client ID:	Run ID: HG1_101019A		SeqNo: 1456919		Prep Date: 10/19/2010		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001844	0.00020	0.002	-0.000014	97.9	75-125	0			
MSD	Sample ID	1010474-01CMSD			Units: mg/L	Analysis Date: 10/19/2010 03:47 P				
Client ID:	Run ID: HG1_101019A		SeqNo: 1456921		Prep Date: 10/19/2010		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.001875	0.00020	0.002	-0.000014	94.4	75-125	0.001944	3.61	20	

The following samples were analyzed in this batch: 1010445-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: EES Coke Battery LLC.
 Work Order: 1010445
 Project: Wash Oil Muck

QC BATCH REPORT

Batch ID: 30064 Instrument ID ICPMS2 Method: SW6020A

MBLK Sample ID MBLK-30064-30064 Units: mg/L Analysis Date: 10/20/2010 04:54 A

Client ID: Run ID: ICPMS2_101019A SeqNo: 1456262 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.0050								
Barium	ND	0.0050								
Cadmium	ND	0.0020								
Chromium	ND	0.0050								
Lead	ND	0.0050								
Selenium	ND	0.0050								
Silver	ND	0.0050								

LCS Sample ID LCS-30064-30064 Units: mg/L Analysis Date: 10/20/2010 04:58 A

Client ID: Run ID: ICPMS2_101019A SeqNo: 1456263 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1014	0.0050	0.1	0	101	80-120	0			
Barium	0.104	0.0050	0.1	0	104	80-120	0			
Cadmium	0.1042	0.0020	0.1	0	104	80-120	0			
Chromium	0.1031	0.0050	0.1	0	103	80-120	0			
Lead	0.09941	0.0050	0.1	0	99.4	80-120	0			
Selenium	0.1003	0.0050	0.1	0	100	80-120	0			
Silver	0.101	0.0050	0.1	0	101	80-120	0			

LCSD Sample ID LCSD-30064-30064 Units: mg/L Analysis Date: 10/20/2010 05:03 A

Client ID: Run ID: ICPMS2_101019A SeqNo: 1456264 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1032	0.0050	0.1	0	103	80-120	0.1014	1.76	20	
Barium	0.105	0.0050	0.1	0	105	80-120	0.104	0.957	20	
Cadmium	0.1042	0.0020	0.1	0	104	80-120	0.1042	0	20	
Chromium	0.1051	0.0050	0.1	0	105	80-120	0.1031	1.92	20	
Lead	0.1031	0.0050	0.1	0	103	80-120	0.09941	3.64	20	
Selenium	0.1014	0.0050	0.1	0	101	80-120	0.1003	1.09	20	
Silver	0.1051	0.0050	0.1	0	105	80-120	0.101	3.98	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: EES Coke Battery LLC.
 Work Order: 1010445
 Project: Wash Oil Muck

QC BATCH REPORT

Batch ID: 30064 Instrument ID ICPMS2 Method: SW6020A

MS Sample ID 1010474-01CMS Units: mg/L Analysis Date: 10/20/2010 06:22 A
 Client ID: Run ID: ICPMS2_101019A SeqNo: 1456279 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1038	0.0050	0.1	0.001174	103	80-120	0			
Barium	0.1727	0.0050	0.1	0.068	105	80-120	0			
Cadmium	0.1036	0.0020	0.1	0.00001542	104	80-120	0			
Chromium	0.1022	0.0050	0.1	0.000576	102	80-120	0			
Lead	0.1017	0.0050	0.1	0.0005774	101	80-120	0			
Selenium	0.1004	0.0050	0.1	0.00005434	100	80-120	0			
Silver	0.09217	0.0050	0.1	-5.39E-06	92.2	80-120	0			

MSD Sample ID 1010474-01CMSD Units: mg/L Analysis Date: 10/20/2010 06:26 A
 Client ID: Run ID: ICPMS2_101019A SeqNo: 1456280 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.105	0.0050	0.1	0.001174	104	80-120	0.1038	1.15	20	
Barium	0.1771	0.0050	0.1	0.068	109	80-120	0.1727	2.52	20	
Cadmium	0.1062	0.0020	0.1	0.00001542	106	80-120	0.1036	2.48	20	
Chromium	0.1041	0.0050	0.1	0.000576	104	80-120	0.1022	1.84	20	
Lead	0.1044	0.0050	0.1	0.0005774	104	80-120	0.1017	2.62	20	
Selenium	0.1026	0.0050	0.1	0.00005434	103	80-120	0.1004	2.17	20	
Silver	0.09221	0.0050	0.1	-5.39E-06	92.2	80-120	0.09217	0.0434	20	

The following samples were analyzed in this batch: 1010445-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: EES Coke Battery LLC.
Work Order: 1010445
Project: Wash Oil Muck

QC BATCH REPORT

Batch ID: 30057 Instrument ID: SVMS6 Method: SW8270

MBLK Sample ID: SBLKW1-30057-30057 Units: µg/L Analysis Date: 10/20/2010 09:38 P

Client ID: Run ID: SVMS6_101020A SeqNo: 1458115 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	ND	5.0								
2,4,5-Trichlorophenol	ND	5.0								
2,4,6-Trichlorophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
Hexachloro-1,3-butadiene	ND	5.0								
Hexachlorobenzene	ND	5.0								
Hexachloroethane	ND	5.0								
m-Cresol	ND	5.0								
Nitrobenzene	ND	5.0								
o-Cresol	ND	5.0								
p-Cresol	ND	5.0								
Pentachlorophenol	ND	20								
Pyridine	ND	20								
Surr: 2,4,6-Tribromophenol	31.77	0	50	0	63.5	40-125	0			
Surr: 2-Fluorobiphenyl	24.99	0	50	0	50	50-110	0			S
Surr: 2-Fluorophenol	19.33	0	50	0	38.7	20-110	0			
Surr: 4-Terphenyl-d14	31.3	0	50	0	62.6	50-125	0			
Surr: Nitrobenzene-d5	29.53	0	50	0	59.1	40-110	0			
Surr: Phenol-d6	13.33	0	50	0	26.7	20-110	0			

LCS Sample ID: SLCSW1-30057-30057 Units: µg/L Analysis Date: 10/20/2010 07:52 P

Client ID: Run ID: SVMS6_101020A SeqNo: 1458105 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	20	5.0	40	0	50	30-100	0			
2,4,5-Trichlorophenol	27.82	5.0	40	0	69.6	50-110	0			
2,4,6-Trichlorophenol	28.46	5.0	40	0	71.2	50-115	0			
2,4-Dinitrotoluene	31.61	5.0	40	0	79	50-120	0			
Hexachlorobenzene	27.2	5.0	40	0	68	50-110	0			
Hexachloroethane	17.85	5.0	40	0	44.6	30-95	0			
m-Cresol	22.99	5.0	40	0	57.5	30-110	0			
Nitrobenzene	27.68	5.0	40	0	69.2	45-110	0			
Pentachlorophenol	7.56	20	40	0	18.9	40-115	0			JS
Surr: 2,4,6-Tribromophenol	37.64	0	50	0	75.3	40-125	0			
Surr: 2-Fluorobiphenyl	27.75	0	50	0	55.5	50-110	0			
Surr: 2-Fluorophenol	20.07	0	50	0	40.1	20-110	0			
Surr: 4-Terphenyl-d14	34.64	0	50	0	69.3	50-125	0			
Surr: Nitrobenzene-d5	31.38	0	50	0	62.8	40-110	0			
Surr: Phenol-d6	13.43	0	50	0	26.9	20-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: EES Coke Battery LLC.
 Work Order: 1010445
 Project: Wash Oil Muck

QC BATCH REPORT

Batch ID: 30057 Instrument ID: SVMS6 Method: SW8270

LCSD		Sample ID: SLCSDW1-30057-30057				Units: µg/L		Analysis Date: 10/20/2010 08:19 P		
Client ID:		Run ID: SVMS6_101020A				SeqNo: 1458108		Prep Date: 10/19/2010		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	19.45	5.0	40	0	48.6	30-100	20	2.79	30	
2,4,5-Trichlorophenol	27.09	5.0	40	0	67.7	50-110	27.82	2.66	30	
2,4,6-Trichlorophenol	28.06	5.0	40	0	70.2	50-115	28.46	1.42	30	
2,4-Dinitrotoluene	31.18	5.0	40	0	78	50-120	31.61	1.37	30	
Hexachlorobenzene	26.95	5.0	40	0	67.4	50-110	27.2	0.923	30	
Hexachloroethane	16.81	5.0	40	0	42	30-95	17.85	6	30	
m-Cresol	23.09	5.0	40	0	57.7	30-110	22.99	0.434	30	
Nitrobenzene	27.18	5.0	40	0	68	45-110	27.68	1.82	30	
Pentachlorophenol	8.92	20	40	0	22.3	40-115	7.56	0	30	JS
Surr: 2,4,6-Tribromophenol	36.87	0	50	0	73.7	40-125	37.64	2.07	40	
Surr: 2-Fluorobiphenyl	26.82	0	50	0	53.6	50-110	27.75	3.41	40	
Surr: 2-Fluorophenol	20.34	0	50	0	40.7	20-110	20.07	1.34	40	
Surr: 4-Terphenyl-d14	34.06	0	50	0	68.1	50-125	34.64	1.69	40	
Surr: Nitrobenzene-d5	30.59	0	50	0	61.2	40-110	31.38	2.55	40	
Surr: Phenol-d6	13.47	0	50	0	26.9	20-110	13.43	0.297	40	

MS		Sample ID: 1010474-24B MS				Units: µg/L		Analysis Date: 10/20/2010 08:45 P		
Client ID:		Run ID: SVMS6_101020A				SeqNo: 1458110		Prep Date: 10/19/2010		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	181.1	50	400	0	45.3	30-100	0			
2,4,5-Trichlorophenol	269.7	50	400	0	67.4	50-110	0			
2,4,6-Trichlorophenol	278.9	50	400	0	69.7	50-115	0			
2,4-Dinitrotoluene	318.4	50	400	0	79.6	50-120	0			
Hexachlorobenzene	275.9	50	400	0	69	50-110	0			
Hexachloroethane	148	50	400	0	37	30-95	0			
Nitrobenzene	266.2	50	400	0	66.6	45-110	0			
Pentachlorophenol	124.9	200	400	0	31.2	40-115	0			JS
Surr: 2,4,6-Tribromophenol	381.9	0	500	0	76.4	40-125	0			
Surr: 2-Fluorobiphenyl	269.5	0	500	0	53.9	50-110	0			
Surr: 2-Fluorophenol	213.6	0	500	0	42.7	20-110	0			
Surr: 4-Terphenyl-d14	335.4	0	500	0	67.1	50-125	0			
Surr: Nitrobenzene-d5	303.1	0	500	0	60.6	40-110	0			
Surr: Phenol-d6	140.2	0	500	0	28	20-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: EES Coke Battery LLC.
 Work Order: 1010445
 Project: Wash Oil Muck

QC BATCH REPORT

Batch ID: 30057 Instrument ID SVMS6 Method: SW8270

MSD Sample ID 1010474-24B MSD Units: µg/L Analysis Date: 10/20/2010 09:12 P

Client ID: Run ID: SVMS6_101020A SeqNo: 1458112 Prep Date: 10/19/2010 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,4-Dichlorobenzene	191.4	50	400	0	47.8	30-100	181.1	5.53	30	
2,4,5-Trichlorophenol	267.8	50	400	0	67	50-110	269.7	0.707	30	
2,4,6-Trichlorophenol	275.3	50	400	0	68.8	50-115	278.9	1.3	30	
2,4-Dinitrotoluene	303	50	400	0	75.8	50-120	318.4	4.96	30	
Hexachlorobenzene	261.4	50	400	0	65.4	50-110	275.9	5.4	30	
Hexachloroethane	164	50	400	0	41	30-95	148	10.3	30	
Nitrobenzene	266.3	50	400	0	66.6	45-110	266.2	0.0376	30	
Pentachlorophenol	140.5	200	400	0	35.1	40-115	124.9	0	30	JS
Surr: 2,4,6-Tribromophenol	384.5	0	500	0	72.9	40-125	381.9	4.66	40	
Surr: 2-Fluorobiphenyl	270.1	0	500	0	54	50-110	269.5	0.222	40	
Surr: 2-Fluorophenol	210.4	0	500	0	42.1	20-110	213.6	1.51	40	
Surr: 4-Terphenyl-d14	336.1	0	500	0	67.2	50-125	335.4	0.208	40	
Surr: Nitrobenzene-d5	303.6	0	500	0	60.7	40-110	303.1	0.165	40	
Surr: Phenol-d6	137.4	0	500	0	27.5	20-110	140.2	2.02	40	

The following samples were analyzed in this batch: 1010445-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



☐ **ALS Laboratory Group**

10450 Standliff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887

Chain of Custody Form

Page 1 of 1

☐ **ALS Laboratory Group**

3352 128th Ave.
Holland, MI 49424-9263
Tel: +1 616 399 6070
Fax: +1 616 399 6185

ALS Project Manager:

ALS Work Order #: 1010445

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name		A	TCLP Metals											
Work Order		Project Number		B	TCLP VOC's											
Company Name	EES Coke	Bill To Company		C	TCLP SVOC's											
Send Report To	Mark Nederveld	Invoice Attn		D												
Address	1400 20g Island Rd	Address		E												
				F												
City/State/Zip	Detroit, MI 48209	City/State/Zip		G												
Phone	313 297 4183	Phone		H												
Fax	313 297 4184	Fax		I												
e-Mail Address	nederveldm@dtcenergy.com	e-Mail Address		J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Wash Oil Muck	10/15/10	10:00	Sludge	8	1	X	X	X								
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <u>Mark Nederveld</u>		Shipment Method <u>Carrier</u>		Required Turnaround Time: (Check Box) <input type="checkbox"/> STD 10 Wk Days <input checked="" type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:									
Relinquished by: <u>Mark Nederveld</u>	Date: <u>10/15/10</u>	Time: <u>2:05pm</u>	Received by: <u>[Signature]</u>	Notes:													
Relinquished by: <u>[Signature]</u>	Date: <u>10/15/10</u>	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp	QC Package: (Check One Box Below)											
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>10/16/10</u>	Time: <u>0820</u>	Checked by (Laboratory):			<input type="checkbox"/> Level II Std QC	<input type="checkbox"/> TRRP Checklist										
						<input type="checkbox"/> Level III Std QC/Raw Date	<input type="checkbox"/> TRRP Level IV										
						<input type="checkbox"/> Level IV SW846/CLP											
						<input type="checkbox"/> Other											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2008 by ALS Laboratory Group.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: EESCOKE

Date/Time Received: 16-Oct-10 08:20

Work Order: 1010445

Received by: KRW

Checklist completed by Keith Waringa
eSignature

16-Oct-10
Date

Reviewed by: Joseph Libar
eSignature

16-Oct-10
Date

Matrices: Sludge

Carrier name: City Transfer

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.6 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

EQ - The Environmental Quality Company

Waste Characterization Report

I authorize EQ - The Environmental Quality Company to choose the appropriate method of waste management, from the technologies offered, at the EQ facilities identified below.

<input checked="" type="checkbox"/> Michigan Disposal Waste Treatment Plant (Stabilization and Treatment)	49350 North I-94 Service Drive, Belleville, Michigan 48111 Phone: 1-800-592-5489 Fax: 1-800-592-5329	EPA ID #MID000724831
<input type="checkbox"/> Wayne Disposal, Inc. (Hazardous & PCB Waste Landfill)	49350 North I-94 Service Drive, Belleville, Michigan 48111 Phone: 1-800-592-5489 Fax: 1-800-592-5329	EPA ID #MID048090633
<input type="checkbox"/> EQ Detroit, Inc. (Stabilization, Wastewater Treatment)	1923 Frederick, Detroit, MI 48211 Phone: 1-800-495-6059 Fax: 1-313-923-3375	EPA ID #MID980991566
<input type="checkbox"/> EQ Resource Recovery, Inc. (Solvent Recycling, Fuel Blending, WW Treatment)	36345 Van Born Road, Romulus, Michigan 48174 Phone: (734) 727-5500 Fax: (734) 326-4033	EPA ID #MID060975844
<input type="checkbox"/> EQIS North Carolina (Stabilization, Treatment, Labpack Decommissioning)	1005 Investment Blvd., Apex, NC 27502 Phone: (919) 363-4700 Fax: (919) 363-4714	EPA ID #NCD982170292
<input type="checkbox"/> EQ Florida, Inc. (Drum Consolidation, Labpack Decommissioning)	7202 East Eighth Ave., Tampa, FL 33619 Phone: 1-800-624-5302 Fax: 1-813-628-0842	EPA ID #FLD981932494
<input type="checkbox"/> EQ Detroit Transfer and Processing (Drum Transfer/Universal Waste Handling)	2000 Ferry Street, Detroit, MI 48211 Phone: (313) 923-0080 Fax: (313) 922-8419	EPA ID #MIK939928313
<input type="checkbox"/> EQIS Indianapolis Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	2650 N. Shadeland Avenue, Indianapolis, IN 46219 Phone: (317) 247-7160 Fax: (317) 247-7170	EPA ID #IND161049309
<input type="checkbox"/> EQIS Atlanta Transfer and Processing (Drum Transfer/Non-Hazardous Waste Processing)	5600 Fulton Industrial Blvd., Atlanta, Georgia 30336 Phone: (404) 494-3520 Fax: (404) 494-3560	EPA ID #GAR000039776
<input type="checkbox"/> EQ Augusta, Inc. (Wastewater Treatment)	3920 Goshen Industrial Blvd., Augusta, GA 30906 Phone: 706-771-9100 Fax: 706-771-9124	EPA ID #GAR000011817

Waste Common Name: COAL TAR AND DEBRIS

Section 1 - Generator & Customer Info

SIC/NAICS*:
Generator EPA ID: MIK-498-855-683

Generator: DTE ENERGY SERVICES EES COKE BATTERY LLC
Address: 1400 ZUG ISLAND
City: RIVER ROUGE
State: MI Zip: 48218
County: WAYNE

Mailing Address
Address: 1400-ZUG-ISLAND PO Box 18309
City: RIVER ROUGE
State: MI Zip: 48218

Generator Contact
Name: Mark Nederveld Brenna Harden
Title: Environmental Engineer
Phone: (313) 297-4183
Fax: () -313. 297. 4184

EQ Customer No.: 10904

Involving Company
Company: EES COKE BATTERY LLC
Address: 1400-ZUG-ISLAND-ROAD PO Box 18309
City: RIVER ROUGE
State: MI Zip: 48209-48218
Country: USA

Involving Contact
Name: Jennifer Armstrong
Phone: () -313. 216. 2550
Fax: () -313. 217. 4184

Technical Contact
Name: Mark Nederveld Brenna Harden
Phone: (313) 218-0008 313. 297. 4183
Fax: () -313. 297. 4184
Mobile: 313. 320. 5255 Pager: () NA
E-mail: hardenb@dteenergy.com

*For a list of NAICS codes, please refer to Section 9 of the EQ Resource Guide.

No signature

Section 2 - Shipping & Packaging Info

2.1) Shipping Volume & Unit: 20 YARDS

Frequency: One Time Only

2.2) DOT Shipping Name: RQ, HAZARDOUS WASTE SOLID, N.O.S., 9, UN 3077, PG III

2.3) Is this waste surcharge exempt? ☐ Yes ☒ No (If you answered "Yes" to question 2.3, select the Surcharge Exemption reason.)

2.4) Packaging (check all that apply)

☒ Bulk Solid (yd³ < 2000 lbs/yd³)

☐ Totes, Size

☐ Other (palletized, 5 gal. Pail, etc.)

☐ Bulk Solid (Ton > 2000 lbs./yd³)

☐ Cubic Yard Boxes/Bags

☐ Bulk Liquids (Gallon)

☐ Drums, Size

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

Section 3 - Physical Characteristics

3.1) Color: VARIES

3.2) Odor: COAL TAR

3.3) Does this waste contain any "Potentially Odorous Constituents" as defined in the EQ Resource Guide? (Section 3) ☐ Yes ☒ No

3.4) Physical State at 70 ° F:

☒ Solid

☐ Dust/Powder

☐ Liquid

☐ Sludge

3.5) What is the pH of this waste?

☐ ≤ 2

☐ 2.1-4.9

☒ 5-10

☐ 10.1-12.4

☐ ≥ 12.5

3.6) What is the flash point of this waste?

☐ <90 ° F

☐ 90-139 ° F

☐ 140-199 ° F

☒ ≥ 200 ° F

3.7) Does this waste contain? (check all that apply)

☒ None

☐ Free Liquids

☐ Oily Residue

☐ Metal Fines

☐ Biodegradable Sorbents

☐ Amines

☐ Ammonia

☐ Water Reactive

☐ Biohazard

☐ Aluminum

☐ Shock Sensitive Waste

☐ Reactive Waste

☐ Radioactive Waste

☐ Explosives

☐ Pyrophoric Waste

☐ Isocyanates

☐ Asbestos - non-friable

☐ Asbestos - friable

☐ Dioxins

☐ Furans

Section 4 - Composition / Generating Process

4.1) Describe the physical composition of the waste (i.e., soil, water, PPE, debris, key chemical compounds, etc.)

COAL TAR

from 50. to 80. %

DEBRIS (PPE, CARDBOARD, ETC.)

from 0. to 20. %

ROLLOFF LINERS

from 0. to 20. %

4.2) Provide a detailed description of the process generating this waste.

(attach flow diagram if available).

Section 5 - Is This Hazardous Waste?

Please refer to Section 5 of the EQ Resource Guide for a list of waste codes.

As determined by 40 CFR, Part 261 and Michigan Act 451 Rules:

Please list applicable waste code(s):

5.1) Is this an EPA RCRA listed hazardous waste (F, K, P or U)?

☒ Yes

☐ No

Comments: K141, K142, K143, K144, K207

5.2) Is this an EPA RCRA characteristic hazardous waste (D001-D043)?

☒ Yes

☒ No

Comments: D018

5.3) Do any State Hazardous Waste Codes apply?

☐ Yes

☒ No

Comments:

5.4) Is this waste intended for wastewater treatment?

☐ Yes*

☒ No

If you answered "No" to questions 5.1, 5.2, and 5.3, please skip to Section 7.

If you answered "Yes" to question 5.4, please complete the WCR Addendum.

Section 6 - Hazardous Wastes

6.1) Does this waste exceed Land Disposal Restriction Levels?

6.1a) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40 CFR 268.49?

6.1b) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.)

6.2) Is the waste an oxidizer (D001)?

6.3) Does this waste contain reactive cyanide \geq 250 ppm (D003)?

6.4) Does this waste contain reactive sulfide \geq 500 ppm (D003)?

6.5) Please indicate which constituent concentrations are below or above the regulatory level. Please indicate the basis used in the determination. Either 'Below' or 'Above' **MUST** be checked for each constituent.

Based On: ☐ Generator Knowledge ☒ Analysis* ☐ MSDS*

*Please forward a copy. Analysis or MSDS are required for EQ Florida Non-hazardous wastes.

Code	Regulatory Level	TCLP (mg/l)	Concentration (if above)	Code	Regulatory Level	TCLP (mg/l)	Concentration (if above)
D004	Arsenic	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D024	m-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D005	Barium	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D025	p-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D006	Cadmium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D026	Cresols	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D007	Chromium	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D027	1,4-Dichlorobenzene	7.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D008	Lead	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D028	1,2-Dichloroethane	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D009	Mercury	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above	D029	1,1-Dichloroethylene	0.7	<input checked="" type="radio"/> Below <input type="radio"/> Above
D010	Selenium	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D030	2,4-Dinitrotoluene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above
D011	Silver	5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D031	Heptachlor	0.008	<input checked="" type="radio"/> Below <input type="radio"/> Above
D012	Endrin	0.02	<input checked="" type="radio"/> Below <input type="radio"/> Above	D032	Hexachlorobenzene	0.13	<input checked="" type="radio"/> Below <input type="radio"/> Above
D013	Lindane	0.4	<input checked="" type="radio"/> Below <input type="radio"/> Above	D033	Hexachlorobutadiene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D014	Methoxychlor	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D034	Hexachloroethane	3.0	<input checked="" type="radio"/> Below <input type="radio"/> Above
D015	Toxaphene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D035	Methyl Ethyl Ketone	200	<input checked="" type="radio"/> Below <input type="radio"/> Above
D016	2,4-D	10	<input checked="" type="radio"/> Below <input type="radio"/> Above	D036	Nitrobenzene	2	<input checked="" type="radio"/> Below <input type="radio"/> Above
D017	2,4,5-TP (Silvex)	1	<input checked="" type="radio"/> Below <input type="radio"/> Above	D037	Pentachlorophenol	100	<input checked="" type="radio"/> Below <input type="radio"/> Above
D018	Benzene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D038	Pyridine	5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D019	Carbon Tetrachloride	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above	D039	Tetrachloroethylene	0.7	<input checked="" type="radio"/> Below <input type="radio"/> Above
D020	Chlordane	0.03	<input checked="" type="radio"/> Below <input type="radio"/> Above	D040	Trichloroethylene	0.5	<input checked="" type="radio"/> Below <input type="radio"/> Above
D021	Chlorobenzene	100	<input checked="" type="radio"/> Below <input type="radio"/> Above	D041	2,4,6-Trichlorophenol	400	<input checked="" type="radio"/> Below <input type="radio"/> Above
D022	Chloroform	6.0	<input checked="" type="radio"/> Below <input type="radio"/> Above	D042	2,4,6-Trichlorophenol	2	<input checked="" type="radio"/> Below <input type="radio"/> Above
D023	o-Cresol	200	<input checked="" type="radio"/> Below <input type="radio"/> Above	D043	Vinyl Chloride	0.2	<input checked="" type="radio"/> Below <input type="radio"/> Above

6.6) If this is a characteristic hazardous waste, does it contain underlying hazardous constituents?

If you answered 'Yes', please list the constituents in Section 11.

☐ Yes ☒ No

Section 7 - Non-Hazardous Wastes

For a complete list of non-hazardous waste codes, please refer to Section 7 of the EQ Resource Guide.

Applicable waste code(s):

7.1) Is this a Michigan non-hazardous liquid industrial waste?

☐ Yes ☒ No

Comments:

7.2) Is this a Universal waste?

☐ Yes ☒ No

7.3) Is this a Recyclable Commodity? (e.g.: computer monitors, free mercury, etc.)

☐ Yes ☒ No

7.4) Is this waste a recoverable petroleum product?

☐ Yes ☒ No

7.5) Is this waste used oil as defined by 40 CFR Part 279?

☐ Yes ☒ No

Section 8 - TSCA Information

- 8.1) What is the concentration of PCBs in the waste? ☒ None ☐ 0-5 ppm ☐ 6-49 ppm
☐ 50-499 ppm ☐ 500+ ppm
- 8.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ☐ Yes ☒ No
If you answered 'None' to 8.1 and 'No' to 8.2, please skip to Section 9.
- 8.3) Has this waste been processed into a non-liquid form? ☐ Yes ☐ No
If yes, what was the concentration of PCBs prior to processing? (ppm) ☐ N/A ☐ 0-499 ☐ 500+
- 8.4) Is the non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ☐ Yes ☐ No
- 8.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ☐ Yes ☐ No
- 8.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ☐ N/A ☐ Yes ☐ No

Section 9 - Clean Air Act Information

- 9.1) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD or 40 CFR, Part 264, Subpart CC (RCRA)? ☐ Yes ☒ No
(Does the waste contain >500 ppm Volatile Organic Hazardous Air Pollutants - VOHAP's or Volatile Organic Compounds - VOC's?)
For a complete list of VOHAPs, please see Section 11 of the EQ Resource Guide.
- 9.2) Is this site, or waste, subject to any other MACT or NESHAP? ☒ Yes ☒ No *Handwritten: 40 CFR 61, Subpart L, V, FF 40 CFR 63, Subpart L & CCCC*
- 9.3) Does this waste stream contain Benzene? ☒ Yes ☒ No
If you answered "No" to question 9.2, please skip to section 10.
- 9.4) Does the waste stream come from a facility with one of the SIC/NAICS codes listed under the Benzene NESHAP identified in 40 CFR 61, Subpart FF? ☒ Yes ☐ No
- 9.5) Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) ≥ 10 Mg/year? ☐ Yes ☒ No
For assistance in calculating the TAB, please see the TAB Worksheet in Section 9 of the EQ Resource Guide.
If you answered "No" to question 9.3 and 9.4, please skip to Section 10.
- 9.6) Does the waste contain > 10% water? ☐ Yes ☒ No
- 9.7) What is the TAB quantity for your facility? 1.15 Mg/year
- 9.8) Does the waste contain >1.0 mg/kg total Benzene? ☒ Yes ☐ No
- 9.9) What is the total Benzene concentration in your waste? (concentration) 0-20 (unit) mg/kg
- (Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.)*
- *For a list of NAICS codes, please refer to section 9 of the EQ Resource Guide.*

Section 10 - Fuel Blending Information

- 10.1) Is this waste intended for fuel blending? ☐ Yes* ☒ No
If you answered 'Yes' to question 10.1, please enter the following:
- Heat value (BTU/lb.) _____
Chlorine (%) _____
Water (%) _____
Solids (%) _____
- 10.2) Is this waste intended for reclamation? ☐ Yes ☒ No (5-Gallon Sample required for all reclaim waste streams)

Section 11 - Constituent Information

Please identify your waste constituents from these four categories: Underlying Hazardous Constituents (UHC's), Volatile Organic Hazardous Air Pollutants (VOHAP's), Volatile Organic Compounds (VOC's) and Toxic Release Inventory Constituents (TRI)

Constituent	Concentration	UHC?
-------------	---------------	------

Please see Section 11 of the EQ Resource Guide for a list of UHC's, VOHAP's and VOC's. For a complete list of TRI constituents, please refer to 40 CFR 372.65.

Section 12 - Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's Resource Team to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's Resource Team to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

Comments:

Generator: Brenna Harden Brenna Harden
Authorized Generator Signature Printed Generator Name
Company: EES Coke Battery, LLC Title: Environmental Engr Date: 6/16/14

The generator's signature MUST appear on the EQ Waste Characterization Report. If the generator has authorized a third party to certify this document, a written notice (on generator letterhead) must accompany this submittal. Although the EQ Resource Team is authorized to make certain modifications to the information provided on this form, the addition or removal of waste codes and waste constituents must be documented by the generator.

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ - The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Characterization Report, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions.

The following definitions shall apply for purposes of this Agreement:

"Acceptable Waste" shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"Delivered Wastes" shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Characterization Report and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Characterization Report (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Characterization Report containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Characterization Report, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Characterization Report.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Characterization Report. The information set forth in the Waste Characterization Report or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Characterization Report, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statutes, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure.

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws.

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.



LAND DISPOSAL RESTRICTION AND CERTIFICATION FORM

Generator: EES COKE BATTERY LLC

U.S. EPA ID No.: MIK498855683

1400 ZUG ISLAND, DETROIT, MI 48209

Manifest:

Page - Line

1 - 01

Approval: F143028DET

NWW

Waste Code(s): D018 K087 K141 K142 K143 K144

Hazardous Constituents: NONE

Subcategory(s):

Certification: THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD.

This waste must be treated to the applicable performance based treatment standard set forth in 40CFR Part 268 Subpart C and Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature:

Brenna Harden

Title:

Environmental Engineer

Printed
Name:

Brenna Harden

Date:

8/20/14

EES Coke Battery, LLC
MIK498855683
March 17-19, 2015

ATTACHMENT F: Inspection Checklist

